CREATING A NEW REALITY:

INFORMATION AGE EFFECTS ON THE DECEPTION PROCESS

BY

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APPROVAL

The undersigned certify that this thesis meets masters-level standards of research, argumentation, and expression.

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ABSTRACT

Deception as a means to achieve surprise is a recurring theme in the history of warfare. Successful deception uses information to manipulate and shape an adversary's perception of the world to a viewpoint that creates an atmosphere in which the adversary acts in accordance to the deceiver's will. Deception is a complex problem that crosses the boundaries of several disciplines including sociology, psychology, and political studies. Today's information environment, however, demands a further examination of deception's relevance in the modern world.

Given the technological explosion over the past two decades with respect to information flow and availability, certain questions arise. How do Information Age changes affect deception operations? Do they relegate deception to old world lore or does the increased access to knowledge and information increase deception opportunities and its effectiveness? In short, what effect does the Information Age have on the overall deception process and what are the ramifications for today's political and military strategists?

In answering these questions, the deception process is simplified in a process model that encapsulates the core components of the information exchange and the interaction between deceiver and the target of the deception. Two historical case studies, Hitler's deception before the Barbarossa invasion of Russia in 1941 and Sadat's plan to deceive the Israelis before the October invasion of 1973, serve to illustrate the model in the context of the their times. They further serve to illuminate how modern Information Age effects may influence deception campaigns in general.

The analysis illustrates how the Information Age has dramatically increased the ability of a deceiver to plan and execute strategic deception. The abundance of information facilitates the deceiver's ability to have a more in-depth understanding of the target's perception of the environment and how he collects information. This knowledge in conjunction with the expansive channels available to transfer information increases the effectiveness of deception. Finally, the Information Age affords the deceiver with greater capability to receive feedback that ultimately enhances the rouse.

The benefits also come with a cost. The Information Age introduces new challenges to modern deceivers. Information overload and keeping disinformation above the noise level is more difficult amidst the vast quantities of information available. Multiple channels and an abundance of information challenges the deceiver to develop a deception plan that remains coherent through several mediums and sources all occurring in a shorter amount of time.

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Introduction

Though fraud in other activities be detestable, in the management of war it is laudable and glorious, and he who overcomes an enemy by fraud is as much to be praised as he who does so by force.

Machiavelli

Deception is the manipulation of an enemy's perception to gain a strategic advantage. Military strategists for centuries have understood the advantage gained by surprise. Sun Tzu focused his basic strategy on manipulation of the enemy's perception to create the opportunity for an easy victory. He advocated the employment of orthodox (cheng) and unorthodox (ch'i) forces stressing both speed and surprise.[1] Carl Von Clausewitz described surprise as a means to gain superiority and argued that it "lies at the roots of all operations without exception, though in widely varying degrees depending on the nature and circumstance of the operation."[2] Surprise is a decisive factor in war, and it is by means of deception that one principally achieves this condition.

Deception is thus a powerful instrument for nations wanting to achieve strategic military, political, or economic surprise. The use of deception may seem unethical in nature, but should be seen as an amoral quest for acheiving a continual advantage over an adversary. Accordingly, strategists should not view deception as a toll of last resort for the weak, but as an instrument to gain or maintain a strategic advantage over a rival. Deception is a force multiplier and is a critical part of campaign planning at all levels. Its skillful use can prove to be a powerful and decisive instrument of national power.

At the heart of deception's efficacy lies the transfer of information. The deceiver makes use of information to alter the perception of an adversary. As such, information plays a pivotal role in the planning and execution of any deception strategy. Simply put, deception relies on information exchanges. In light of this intimate relationship and given the technological explosion over the past fifteen to twenty years with respect to information flow and availability, certain questions arise. How do Information Age changes affect deception operations? Do they relegate deception to old world lore or

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[1] Ralph D. Sawyer and Mei-chün Sawyer, *The Art of War*, *History and Warfare* (Boulder: Westview Press, 1994), 134.
[2] Carl von Clausewitz, Michael Eliot Howard, and Peter Paret, *On War*, Rev. ed. (Princeton, N.J.: Princeton University Press, 1984), 198.

does the increased access to knowledge and information increase deception opportunities and its effectiveness? In short, what effect does the Information Age have on the overall deception process and what are the ramifications for today's political and military strategists?

This thesis examines these questions. Its findings suggest that the Information Age increases the opportunities and effectiveness of deception because increased channels and feedback mechanisms allow for better perception management over shorter periods. These benefits, however, come with a cost. The multiple channels of information transmission and the shortening of time lines introduce new challenges for the deceiver. An exponential growth in channels can lead to coherency issues along with signals becoming lost in the vast amount of information available today. Before presenting the argument behind these assertions, however, this study must clarify its boundaries and definitions and explain its methods.

In practice, deception is a strategic activity that is tightly interwoven with the concept of denial. They represent distinct activities, however, each with distinctive goals and motivations. Denial is the attempt to block an adversary's access to or use of information that would enable the adversary to determine the *truth*. Deception, in contrast, supplies an adversary with information. The two act in concert to achieve a desired effect. For an adversary to accept a false reality, the deceiver must present not only an alternative reality, but also withhold the *true* picture. For simplicity's sake, this paper's focus is limited only to the deception portion of these operations.

As an activity, deception is also applicable throughout all levels of warfare. Of interest in this study, however, are the campaigns that target the highest-level of decision makers, namely an adversary's senior military commanders or political leaders. The term strategic denotes this distinction. Thus, the aim of a strategic deception campaign is to influence top-level decision-makers to act or not act in accordance with the deceiver's will. Individual ploys and battles do not carry the same magnitude of effects as the campaigns executed at the strategic level. Even though successful campaigns involve planning and executing at the strategic, operational, and tactical levels to be successful, this thesis analyzes only the strategic piece of campaigns.

The term Information Age also needs clarification. A purist might see the Information Age as beginning with the first instance of communication. Other suitable geneses are the invention of writing in Mesopotamia around 3500 B.C., the first use of the Johann Gutenberg's printing press, or countless other revolutions in the communications field since. For the purpose of this thesis, however, the Information Age refers specifically to the digital age, the period covering the last fifteen years (1991-2006), when personal computers began to proliferate and connect to the Internet. These technologies resulted in an exponential growth in information channels and a corresponding increase in the amount and quantity of information available.

To illuminate the effects of the Information Age on deception operations, this analysis first develops a simplistic model of the deception process. This process develops three primary influences on the target's perception. The sending of signals through channels, feedback analyzed by the deceiver, and the notion of time on the overall iterative process are the independent variables manipulating perception. This model becomes the lens to view the case studies.

The case studies selected, Barbarossa, the German invasion of Soviet Union in the Second World War, and Badr, the Egyptian invasion of the Sinai Peninsula against the Israelis in the October War of 1973, show a commonality of deception factors within each campaign. Both case studies involve a pre-invasion deception campaign aimed at achieving strategic surprise at the start of the conflict. These case studies allow for a detailed study of the proposed model followed by an extrapolation of how the Information Age might have affected their planning and execution.

The body of this study contains four chapters. The first chapter defines and limits the scope of the methodology used for the analysis. The chapter describes a simplified deception process model and details its components. The next two chapters use historical case studies to identify the deception process cycle in an actual deception campaign and illustrate the flow and importance of information within this cycle. Each case study starts with the context of the deception campaign as it relates to the overall strategic political and military objectives of the overall war effort. Subsequently, the campaign's objective and plan are set forth followed by the dissection of each case using the components of the deception cycle process. The final chapter examines how the Information Age has

changed the components of the deception process and recasts elements of the case studies in light of Information Age advancements.

The limitations and assumptions of this analysis relate to the intricate problem strategic deception entails. First, deception is only a partial element of the larger problem of denial and deception. Obviously, for deception to succeed, the deceiver must orchestrate it congruently with an equally rigorous campaign that denies the adversary access to reliable information and/or the ability to draw valid conclusions. Deception encompasses the disciplines of sociology, psychology, and political science creating a nexus of conceptual factors that are seemingly incapable of differentiation. Addressing each of these nuances for their effects on deception is beyond the scope of this study. In addition, this analysis greatly simplifies the complex interaction of both the target's perception and the deceiver's perception of the target's perception.

Another limitation of the study concerns the evidence available for the case studies. In both instances, the eventual defeated state was the one that conducted an initial successful deception campaign. In Barbarossa, this does not present as much of a problem due to the availability of detailed documentation.[3] The point of view of the sources generates wide variations in the assessment of the causes for actions or decisions taken by the target state. Naturally, no state wants to admit being deceived successfully. This attitude looms larger in the Israeli case study. The majority of the writings and sources are from the Israeli perspective. Since Israel was the target of the deception, they downplayed and explained away their being surprised with various justifications and rationalizations. These limitations do not significantly detract from the study as the cases are not presented as a complete and rigorous study of each historical event, but rather as an illustrative mechanism to highlight and validate the simplified deception process model and as a means to demonstrate the effects of the Information Age.

Deception is a seldom acknowledged, but often used instrument in strategy. Barton Whaley's 'Deceptor' database catalogues 232 battles spanning the years between 1914 to

[3] Viktor Suvorov presented an interesting yet controversial theory in his book *Icebreaker: Who Started the Second World War?* This book puts forth the premise that Stalin had intended to invade Germany in the summer of 1941 but the Germans uncovered the plan. Operation Barbarossa was merely a preemptive attack in response to the Soviet threat. Victor Suvorov, *Icebreaker: Who Started the Second World War?* (London: Hamish Hamilton, 1990).

1973. Included in these are 93 examples of strategic deception.[4] Given the historical precedence, strategic deception continues to be a viable option for both political and military leaders to obtain their goals and objectives. Understanding the implications of the Information Age on deception can further extend the usefulness of this tool to implement national power.

[4] Donald C. Daniel and Katherine L. Herbig, *Strategic Military Deception* (New York; Oxford: Pergamon Press, 1982), 179.

Chapter 1

Understanding Deception

Deception is common in the history of warfare. If successful at the strategic level, it can sharply alter a military situation and perhaps shape the outcome of an entire conflict. This chapter focuses on the nature and process of deception. It examines the complexities of the deception problem and introduces a simplified process model that disassembles the deception cycle's components. In short, this chapter builds an understanding of the deception process that sets the foundation for the case studies in the following chapters.

The Complexity of Deception

Thinking about deception, or more specifically about the characteristics and nuances of strategic deception operations, is a cumbersome task. The subject is laden with ambiguity and fine distinctions. Deception is more than just the study of military affairs; it crosses and blurs the lines of multiple disciplines including politics, social behavior, and psychology. In addition, the historical recording of deception operations introduces imprecision that is difficult to surmount.

Deception is the amalgamation of political, sociological, and psychological manipulation. Deception at the strategic level of warfare ties closely to the political objectives of a nation and "directly affects the national fortune and interests."[1] Deception, unlike war and politics, necessitates a cultural understanding of the adversary. The psychological nature of deception itself is a complex realm. History, political preferences, economic milieu, and almost all aspects of culture shape the adversary's perception of the environment. In reality, there is no shared common understanding of the world, but only individual perceptions on both sides. Both the adversary and deceiver have their own perceptions of the world but, in addition, the deceiver has a perception of what it believes is the perception of the adversary. These perceptions influence the interaction of participants with each other and the unfolding of the deception campaign itself. The infusion of sociology, the study of human interaction, in the deception process

[1] Roy Godson and James J. Wirtz, *Strategic Denial and Deception: The Twenty-First Century Challenge* (New Brunswick, N.J.: Transaction Publishers, 2002), 2.

is unmistakable. After all, one can conceptualize strategic deception on the macro level as an interaction of nations and of individuals on the micro level.

Perceptions further influence the historical recording of deception. Human nature causes an unwillingness to admit failings. The victim of deception may underplay the significance or effectiveness of a deception campaign while a deceiver might embellish a success in a similar fashion. The ability to determine objectively what each side believed and interpreted during the presentation of a deception is unrealistic. The bias of the chronicler is bound to influence any account of deception operations. This bias exists whether the victor, who would rather highlight military prowess over deceit, wrote the account or the vanquished described the failure but was unwilling to admit deception was the cause.

The Deception Cycle

Though complex, one can examine and better understand deception by distilling the process into a basic model. In its most basic sense, deception is a specific instance of a communication model. A typical model for communication includes source, message, channel, receiver, context, and feedback.[2] The deception model presented depicts the cyclical nature of the deception process, identifies its two primary actors, and highlights the primary mechanisms that drive it.

The foundation of any deception campaign is the deceiver's understanding of the adversary's perception of the environment. Deceivers design and implement deception campaigns based on their understanding of what the adversary thinks and believes. Since the aim of these campaigns is to manipulate the adversary's perception, the deceiver must have a reference point before attempting to alter that perception to one that causes the target to act in accordance with the deceiver's will. This is not a static assessment, but rather a dynamic iterative refinement achieved by the deceiver with the use of feedback.

A significant impediment to understanding an adversary's view of the world is mirror imaging. Mirror imaging is convenient because it obviates the need to ask the "what if" question. Assuming the deceiver's expectations and perceptions are the same as the adversary's is dangerous. What seems plausible to the deceiver may seem

[2] Robert L. Heath and Jennings Bryant, *Human Communication Theory and Research Concepts, Contexts, and Challenges*, 2nd ed., *Lea's Communication Series* (Mahwah, N.J.: L. Erlbaum, 2000), 20.

ridiculous to the target audience who would quickly reject it. A thorough exploration and study of an adversary will negate the predisposition of the deceiver to mirror image. The success of the deception campaign hinges on the ability of the deceiver to understand fully the perceptions of the target.

One can better understand the process of deception by simplifying it into a cyclical model composed of core components. The two primary actors within this cycle are the deceiver and the deceived, for clarity's sake hereafter referred to as "the target." Perception, or more specifically, the target's perception, is what the deceiver ultimately attempts to influence, and as such is the cycle's key element. The goal of the cycle, or of any deception campaign for that matter, is the manipulation of the target's perception to achieve a desired reaction. A deceiver accomplishes this objective through a deception plan designed to affect the target's behaviors to the benefit of the deceiver. The deceiver executes the deception plan via the passage of information specifically tailored to reinforce or manipulate a target's biases and beliefs. All signals in deception pass through information channels. The deceiver passes his information to the target through transmission channels. Alternatively, feedback channels are the conduits of information through which the deceiver identifies and assesses the target's reaction to the signals of the deception plan. Underlying this entire process is the element of timeliness, which captures the rapidity with which the deceiver can send signals, assess the reaction of the target, and adapt his ongoing deception plan accordingly. Figure 1 below depicts this cycle.

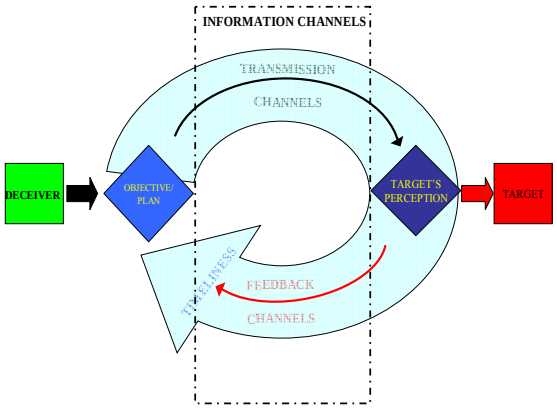

Figure 1 Deception Cycle

Source: Author's original work

Objective

A deceiver's first step in any deception campaign is to determine the campaign's purpose in terms of a desired action or reaction sought from the target. From this desired action, a deceiver then identifies those things that the target must perceive in order to influence him to act accordingly. The end state perception then becomes a deception campaign's objective or set of objectives. These objectives must be "specific, realistic, worthwhile, and achievable, and they must be articulated with uncompromising clarity and precision."[3] After establishing the objective, the deceiver plans the deception campaign to meet the objective.

Plan

The plan for a deception operation must be "ruthlessly rigorous, realistic, specific, detailed, meticulous, comprehensive, and self critical."[4] The plan sets forth the idea, concept, and method in order to achieve the stated objective. Each detail of the plan should relate back to the objective, and help manipulate the target's perception. The plan is the systematic method through which the deceiver manipulates the target.

The specificity and level of detail enables the deceiver's ability to leverage the target's perception in a coherent manner. If the deceiver does not carefully design the deception, it may present conflicting signals, which may allow the target to spot and dismiss the false signals. The plan should synchronize the message and means of transmission so that it seamlessly fits into the overarching design and in the target's perception of the environment. "The deceiver must have some coherent strategic plan in mind to achieve his own objectives; otherwise, he cannot determine how he wishes the target to act" or when the desired end state is met.[5]

A comprehensive plan also should develop an assessment capability. Assessment requires the deceiver to examine assumptions critically, most importantly the assumption of the target's perception, and have mechanisms established to refine and validate these assumptions. The model depicts the refinement of the plan using feedback channels in a cyclic nature. The true art of a deception campaign lies in operationalizing the deception

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[3] Walter Jajko, "Deception: Appeal for Acceptance; Discourse on Doctrine; Preface to Planning," *Comparative Strategy* 21, no. 5: 357.
[4] Jajko, "Deception: Appeal for Acceptance; Discourse on Doctrine; Preface to Planning," 358.
[5] Godson and Wirtz, *Strategic Denial and Deception*, 29.

plan through specific means and methods to convey the intended signals.

Transmission Channels

In one sense, deception campaigns are elaborate communication exchanges. Robert Krauss and Ezequiel Morsella define communication as the transfer of information. This simple definition captures the virtually numberless methods of communication.[6] All information passes through channels. Channels are simply the modes or pathways through which two or more entities might communicate. However, there is also an intrinsic complexity within channels. Channels have a duality expressed as either the means in which the sender transmits the message or how the receiver obtains it.[7] These channels can range from the expected normal intelligence sources to open sources.

Transmission channels are the means through which the deceiver passes information to the target. A thorough deception plan identifies not only specific signals that the deceiver sends to manipulate the target's perception, but also a means of transmission for each signal. This requires, of course, an in-depth knowledge of how the target collects information.

Open and closed designate the major distinctions in describing transmission channels. Closed channels are means of transmission that either the deceiver or target controls. Signals transferred over closed channels are destined for limited and usually known recipients. For example, a target's signal intelligence collection system is a closed channel normally controlled by the target. Open channels transfer information over paths where many signal recipients are possible. For open channels, the sender does not know who or how many recipients may receive the signal. A radio broadcast is an example of an open channel in which the sender has little information on the numbers or identities of the listeners.

Closed Channels

Closed channels are means of information transmission that have controlled access by either the deceiver or the target. The two primary closed channels are human intelligence sources and technical intelligence collection systems. The two subtypes have

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[6] Morton Deutsch and Peter T. Coleman, *The Handbook of Conflict Resolution Theory and Practice*, 1st ed. (San Francisco, Calif.: Jossey-Bass, 2000), 131-43.
[7] Heath and Bryant, *Human Communication Theory and Research Concepts, Contexts, and Challenges*, 79.

a nuanced distinction. Espionage agents are a sender-controlled method where the deceiver controls access. Technical intelligence collection is a type in which the receiver or target obtains the information and thereby controls access.

The human side of closed channels invokes images of Hollywood cloak and dagger spies roaming in enemy territory in search of the elusive piece of information that guarantees victory. Human intelligence (Humint) is an important channel for successful deception campaigns. In several Second World War deceptions carried out by the Allies, double agents played a pivotal role in their success.[8] Spies typically associated with the role of acquiring data also have the ability to interject false signals into a target's intelligence collection system. Agents may have access to the target of deception and in the case of strategic deception access at the highest levels. Access at this level gives them a purer sense of the decision maker's perception. Additionally, information transmitted via agents can reach the intended target more rapidly than signals sent via other transmission means due to the level of access. Signals from other channels can greatly enhance the coherency of a campaign by collaborating information provided by the agent.

Technical intelligence channels, the other major category of closed channels, relates to technical collection systems. The target's methods of collecting information from imagery to communication intercepts encapsulate this type of channel. These channels have benefits and drawbacks over human agents. The deceiver may know with greater specificity a target's technical intelligence system. Knowledge of how the target collects data constrains the deception plan by defining how and what information the deceiver transmits in support of the deception plan. In addition, knowledge of how an individual system works enables the deceiver to exploit it in a deception plan.

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[8] One of the most noteworthy spies during the Second World War was Juan Pujol, codenamed Garbo. Garbo was a double agent that played a significant role in Operation Fortitude, the Allied deception campaign responsible for convincing Hitler that the D-Day invasions would occur at the Pas de Calais. Garbo supplied the German High Command with information fabricated by the XX committee in Britian, the main agency responsible for coordinating both agents and the deception campaigns. Thaddeus Holt, *The Deceivers: Allied Military Deception in the Second World War* (New York: Scribner, 2004), 132-50.

Open Channels

Open channels provide a broader medium for the deceiver to transfer signals and for the target to receive the information. Open channels have an intended audience, but it is less specific and less well known than the audience for closed channels. The first step in examining these channels involves looking at how and what information is extracted from them.

Open Source Intelligence (Osint) means useful information gleaned from public sources, such as scientific articles, newspapers, phone books, and any other means of gathering publicly available information. Robert Steele, an expert on open source intelligence, provides the official definition of Osint:

> By open source, we refer to publicly available information appearing in print or electronic form. Open source information may be transmitted through radio, television, and newspapers or it may be distributed by commercial databases, electronic mail networks, or portable electronic media such as CD-ROMs. It may be disseminated to a broad public, as are the mass media or to a more select audience such as gray literature, which includes conference proceedings, company shareholder reports, and local telephone directories. Whatever form it takes, Open Source involves no information that is: classified at its origin; is subject to proprietary constraints (other than copyright); is the product of sensitive contacts with US or foreign persons or is acquired through clandestine or covert means.[9]

Intelligence systems purposely gather, distill, and discriminate Osint for a selected audience. For strategic deception, that audience is decision makers. The NATO Open Source Information handbook describes the importance of Osint and its contributions to the Intelligence Community. Osint works in concert with closed channels. Osint's four main contributions to classified collection are as: an indicator or tip-off for classified sources, validation and context for information collected from classified sources, efficient targeting of classified sources, and providing a plausible cover story for a classified source.[10] Although open source information is important in its own right, it better serves

[9] Loch K. Johnson and James J. Wirtz, *Strategic Intelligence: Windows into a Secret World: An Anthology* (Los Angeles, Calif.: Roxbury Pub. Co., 2004), 112-13.
[10] "NATO Open Source Intelligence Handbook," (N.P., 2001), 39.

a complimentary role for information obtained via classified channels. For the purpose of deception, the three broad categories of open sources are mass media, propaganda channels, and diplomatic channels.

Mass media comprises all forms of communication to large groups of people, from a handmade sign to an international news network. Academics and media professionals coined the term mass media in the 1920's with the advent of nationwide radio networks and mass circulation magazines and newspapers with the ability to access a large portion of the population rapidly.[11] However, there is no standard for how large the audience needs to be before communication becomes "mass" communication.

Media sources, before the advent of the Internet, represented the bulk of open sources available to learn about the target's perception especially from foreign media broadcasts on radio and television, and foreign printed materials.[12] During the 1930's and 1940's, considered the golden era of radio, broadcasts became a mainstay and a trusted source of information making it a prime candidate for transmission of disinformation.[13] Prior to the Second World War, "not only was radio poised to play an important role as a source of information and entertainment and as a powerful tool for propaganda but the manner in which radio broadcasting had developed provided a basis for the development of an equally persuasive medium in the second half of the twentieth century-television."[14] The prolific growth and popularity of television raised mass media to new heights in the last 60 years. The expansive reach of the medium became evident as the percentage of households with a television jumped from four percent in 1950 to 86 percent in 1959.[15]

Computers and computer technology have experienced a similar exponential advance in the last decade. Computers have ceased being monstrous machines capable of only menial data processing, and have become an integral part of almost everyone's life. The result is a new information experience. Some believe the computer allows one total comprehension of the world around him by connecting into a worldwide flow of

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[11] Lyn Gorman and David McLean, *Media and Society in the Twentieth Century: A Historical Introduction* (Malden: Blackwell Publishers Inc., 2003), 2-4.
[12] "NATO Open Source Intelligence Handbook," 5.
[13] Gorman and McLean, *Media and Society in the Twentieth Century*, 45.
[14] Gorman and McLean, *Media and Society in the Twentieth Century*, 45.
[15] Gorman and McLean, *Media and Society in the Twentieth Century*, 128.

information. The Internet provides the means for that connection. The Internet is a worldwide system of interconnected networks of computers that is publicly accessible. Each step from the radio, television, and the Internet increases the deceiver's ability to transmit signals in support of the deception campaign.

Propaganda channels look very similar to mass media channels and in fact use many of the same physical means of transmission, but the primary difference is intent. Harter and Sullivan contend that the "genesis of propaganda is intent."[16] Propaganda "includes any means of projecting or transmitting images, ideas, or information which influences behavior in an active or passive sense."[17] Propaganda is a specific type of message and presentation aimed directly at influencing the opinions of people, rather than impartially providing information. For example, the deceiver might use propaganda to present a false impression of its military capabilities, rather than indicate its true state of readiness. What separates propaganda from normal mass media communication is in the subtle, often insidious, ways that the message attempts to shape opinion. For example, the deliverer often presents propaganda in a way that deliberately attempts to evoke a strong emotion, in the case of deception, an emotion or reaction that supports the objective of the campaign.

The identification of propaganda channels is not always easy. Governments openly sponsor some propaganda channels and it is obvious to all that the message presented may be biased. For others, however, the tie to the official governmental message may not be as overt. Third parties or other covert means may operate the channel as a method of distancing the source from the message. Easily identified propaganda channels offer less of an opportunity for the deceiver to pass false information than ones less distinguished as such. However, both acknowledged and unacknowledged propaganda channels have a place in deception operations and can influence political leaders and the targets of strategic deception.[18]

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[16] Donald Lincoln Harter and John Sullivan, *Propaganda Handbook* (Philadelphia: 20th Century Pub. Co., 1953), 1.
[17] Oliver Thomson, *Mass Persuasion in History: An Historical Analysis of the Development of Propaganda Techniques* (New York: Crane Russak & Co., 1977), 7.
[18] Godson and Wirtz, *Strategic Denial and Deception*, 18.

While propaganda channels may be either overt or covert, diplomatic channels represent an officially recognized channel for both informal and formal transfer of information. All nations, even nations at war, carry out a minimal amount of diplomatic activity.[19] Diplomatic activity carries some measure of relationship and trust between the agents of which a deceiver can take advantage. The perception by the target is that a diplomat acts within prescribed boundaries. A diplomat may twist the truth to serve a political purpose, but would not tell an outright lie because to do so would damage the professional relationship between him and the target government.[20] Given this relationship, the diplomatic channels offer an opportunity to pass information in support of a deception campaign that a target is more likely to believe. The importance of this channel relates to the level of access it grants as well as implicit trust between the agents. This channel typically gives direct access to officials at the highest level of government, which makes it perfect for strategic deception. This thesis, however, recognizes the limitation of dealing with non-state actors or nations not officially recognized by the government as a limiting factor in using this channel for deception purposes.

Feedback Channels

Finally, feedback closes the communication process. Each signal and transmitted bit of information requires a means of assuring that the target nation or actor has acquired the information and reacted in the expected manner. Heath defines "feedback as information a person (or machine) receives and interprets that allows him or her to determine whether his or her action (such as a message) had the desired effect to achieve a goal."[21] Feedback for deception purposes is the interpretation of the target's response to a deceiver's signal within a deception campaign.

Feedback as an assessment mechanism is crucial to the deception cycle in two respects. First, the feedback mechanism allows for fine-tuning of the campaign by altering follow-on information to enhance and build upon the adversary's acceptance of previous false signals. How a target collects and assimilates information within its own collection and dissemination agencies can strengthen the deceiver's schema of how the

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[19] Godson and Wirtz, *Strategic Denial and Deception*, 21.
[20] Godson and Wirtz, *Strategic Denial and Deception*, 22.
[21] Heath and Bryant, *Human Communication Theory and Research Concepts, Contexts, and Challenges*, 75.

target system operates. The deceiver can identify what channels a target receives information from and determine which of these the target deems most trustworthy. Armed with this knowledge, the deceiver can further exploit transmission channels preferred by the target, while ones that the target viewed with skepticism can either be adapted to better suit the target's perception or discarded.[22] In other words, feedback allows the deceiver to determine which signals the target received and believed, received and rejected, or did not receive at all. Secondly, the deceiver can amend his belief of the target's perception based on what information the target accepts as true versus what information and signals the target rejects. The success of the deception plan hinges on the deceiver's continual ability to adjust the plan to reinforce the target's misperception of reality.[23] It also allows the deceiver to gain a better understanding of the target's perceptions and self-image allowing for a fine-tuning of the deception that enhances the beliefs of the target that benefits the deceiver.

Although the function of feedback channels differs from that of the transmission channels, in practice the mechanisms are similar. For example, the deceiver may use a radio broadcast to transmit a signal to the target then monitor the target's radiobroadcasts to ascertain if the target reacted in accordance to expectations. Feedback also involves the deceiver's intelligence collection system. The deceiver should have the capability to assess the target's signals and actions to further verify the acceptance of the deception plan. These signals and actions also give additional insight into the current state of the target's perception.

Target's Perception

The roots of deception lie in the cognitive processes of perception, misperception, and preconception.[24] Likewise, perception lies at the heart of the deception process model. Within the cycle, both actors have an expression of perception. Barton Whaley argues, "All deceptions occur inside the brain of the person deceived. They take place in the proverbial eye of the beholder; we are not deceived by others, we only deceive

[22] Godson and Wirtz, *Strategic Denial and Deception*, 32.
[23] Godson and Wirtz, *Strategic Denial and Deception*, 32.
[24] Cornelius O'Shea, "A Framework for the Study of Deception," *American Intelligence Journal* 12, no. 1 (1991): 35.

ourselves."[25] Targeting an enemy's perception of the battle space is the ultimate goal of a deception plan, with the aim of creating self-deception in the mind of the target.

The deceiver's perception, however, also comes into play. The deceiver's perception of what the target perceives guides and tailors the design of the deception plan. Perception management captures the intermingling of both perceptions within the deception process. Joint Publication 1-02 defines perception management as "actions to convey and/or deny selected information and indicators to foreign audiences to influence their emotions, motives, and objective reasoning as well as to intelligence systems and leaders at all levels to influence official estimates, ultimately resulting in foreign behaviors and official actions favorable to the originator's objectives. In various ways perception management combines truth projection, operations security, cover and deception, and psychological operations."[26]

The design of a deception plan accounts for known bias and seeks to exploit these for the advantage of the campaign. What the target believes and expects about his adversaries is as important as his beliefs and images of himself. Robert Jervis explained the process of "drawing inferences in light of logic and past experiences produces rational cognitive consistency [that] also causes people to fit incoming information into pre-existing beliefs and to perceive what they expect to be there."[27] Expectations create predispositions. These predispositions lead actors to notice certain signals or bits of information while either consciously or subconsciously disregarding others. In other words, people see what they want to see, tending to reinforce their beliefs with signals that conform while ignoring contrary signals. This phenomenon has significant impact on planning and executing a deception plan. The target actor typically rejects information not fitting in a predisposed belief or perception.[28]

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[25] Barton Whaley, "Toward a General Theory of Deception," *Journal of Strategic Studies* 5 (1982): 180.
[26] United States. Joint Chiefs of Staff., "Department of Defense Dictionary of Military and Associated Terms," (Washington,D.C.: GPO), 414.
[27] Robert Jervis, *Perception and Misperception in International Politics* (Princeton, N.J.: Princeton University Press, 1976), 143.
[28] Jervis, *Perception and Misperception in International Politics*, 195-99.

Timeliness

A temporal element underlies the deception process cycle. Time in a deception campaign is relative. Timeliness relates not only to the ability of the deceiver to formulate a perception of the target's perception and to develop a plan which is then transmitted but more importantly to facilitate and to seek feedback links to further refine his perception. As the cycle speed increases, the adjusted view of the deceiver can further enforce the target's perception and convince the target to act in accordance to the deceiver's objectives.

In review, the deception cycle is a simplified expression of the information exchange between deceiver and target. A deceiver develops an objective and a deception plan based on desired political and military objectives. Meeting the objective centers on the deceiver's ability to manipulate the target's perception to an alternative reality causing a reaction that aids the deceiver's plan. Armed with the basics of the deception process cycle, let us evaluate two case studies using the components of the cycle. The case studies follow the structure laid out in this chapter giving specifics for how the deceiver planned and executed a strategic deception plan. Barbarossa is the first case study. It is a study of deception involving perhaps the two most notorious leaders in history, Stalin and Hitler.

Chapter 2

Hitler's Barbarossa Deception

In November 1939, a scant three months after the establishment of an uneasy alliance with Stalin, Adolf Hitler put in motion plans to conquer Russia and fulfill his *Lebensraum* vision for the German people. From that point to the firing of the first shots of the invasion on 22 June 1941 marks the period, according to its German designers, of "the greatest deception operation in the history of war."[1] The Nazi-Soviet Pact, signed in Moscow on 23 August 1939, was a guarantee of five years of mutual nonaggression and included "Secret Additional Protocols" to expand the Soviet sphere of influence into Finland, Estonia, Latvia, eastern Romania, and eastern Poland.[2] Even before the ink dried, however, Hitler left his senior staff no doubts about the future of the Reich; he regarded "The German-Soviet agreement purely as a short-term necessary 'tactical manouvre.' Treaties were observed only as long as they served a purpose."[3] Hitler's sought to buy time for a German buildup on the eastern front and prevent a preemptive Russian invasion. The instrument chosen to accomplish these goals involved deception.[4]

After initial lightning victories in Poland and France, the Wehrmacht saw its momentum vanish as the battle for Britain droned on. When Britain refused to capitulate, Hitler envisioned the invasion of Russia as the solution to regain German initiative in the

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[1]The English language translation of the OKW's Document 12 "Guidelines for Deception of the Enemy," the primary BARBAROSSA deception planning document proclaimed that this was to be the greatest deception. Barton Whaley, *Codeword Barbarossa* (Cambridge, Mass.: MIT Press, 1973), 248.

[2] Whaley, *Codeword Barbarossa*, 13.

[3] Jürgen Förster, *Hitler's Decision in Favour of War against the Soviet Union*, ed. Research Institute for Military History, vol. IV, *Germany and the Second World War* (Oxford: Clarendon Press, 1990), 19.

[4] The German military during the First World War institutionalized deception and surprise with the creation of the Disinformation Service. After the war, emphasis on deception doctrine and training continued. Organizationally, the Abwehr reorganized deception programs under the Gruppe III-D (D Group) under the military security section. The Group, headed by Colonel von Bentivengni, was responsible for coordinating between the services' General Staffs and the Abwehr's counterespionage division to develop and execute coherent and complete deception strategies. Hitler's operations staff (WFSt) under the Oberkommando der Wehrmacht (OKW) was the central instrument in planning the deception to cover the preparations for the Russian invasion. Whaley, *Codeword Barbarossa*, 171.

war. In addition to *Lebensraum*, he saw a geopolitical grand strategy in the idea. In a twisted manner, he believed the elimination of Russia was perhaps the only way of forcing Britain to surrender, with the added benefit of destroying a potential enemy of Germany.[5] At a general staff meeting on 31 July 1940, he expressed these sentiments, "Britain's hope lies in Russia and the United States. If Russia drops out of the picture America, too, is lost for Britain, because elimination of Russia would tremendously increase Japan's power in the Far East."[6]

Preliminary planning for the eastward thrust, during August 1940, was given the code name *Aufbau Ost*, meaning reconstruction or development East, with an initial target date for the invasion in the spring of 1941.[7] Walter Warlimont, the Chief of the Department of National Defense in the Oberkommando der Wehrmacht (OKW), and later deputy chief of the Operational Staff (WFSt) described the buildup in occupied Poland during the Nuremburg trials; "The necessary conditions in Poland did not exist; railways, quarters, and bridges were not prepared for the advance of the tanks; communication lines and airdromes were not organized. Therefore an order was given to establish all the conditions for the preparation and execution of such a campaign."[8] However, no mention of the Soviet Union or the invasion was associated with the *Aufbau Ost* operation.[9]

Planning continued until 18 December 1940 when Hitler signed "Directive No. 21: Operation Barbarossa."[10] Barbarossa, ironically, was the Roman emperor who led the third crusade, one that failed to achieve its mission to the east.[11] Nineteen months later, the Wehrmacht struck across the Soviet frontier, completely surprising Stalin, and the Red Army, destroying more than 1400 aircraft caught on the ground during the first day, and sweeping 400 miles in four weeks.[12] Hitler surprised Stalin "not because the warnings were ambiguous but precisely because German intelligence had managed to

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[5] F. H. Hinsley, *Hitler's Strategy* (Cambridge Eng.: Cambridge University Press, 1951), 131.
[6] Förster, *Hitler's Decision in Favour of War against the Soviet Union*, 26.
[7] Whaley, *Codeword Barbarossa*, 15.
[8] Nuremburg trial day 56– 11 Feb 46. International Military Tribunal, *Trial of the Major War Criminals before the International Military Tribunal, Nuremberg, 14 November 1945-1 October 1946*, vol. VII (Nuremberg,Ger.: 1947), 250.
[9] Whaley, *Codeword Barbarossa*, 15.
[10] Förster, *Hitler's Decision in Favour of War against the Soviet Union*, 47-48.
[11] Whaley, *Codeword Barbarossa*, 18.
[12] Whaley, *Codeword Barbarossa*, 2.

reduce their ambiguity. In short, surprise had been inflicted by the deliberately false signals and not by the ambiguous signals much less the distracting noise."[13] Hitler's deception campaign successfully masked the invasion timing and the location but more importantly, it masked his intentions.

Objective

The shear scale of Operation Barbarossa required massive preparation and more importantly time to accomplish the buildup. The operation was a substantial logistics and planning undertaking in an attempt to accomplish what great military leaders of the past had failed to accomplish, the occupation of the Russian homeland. Hitler aimed to use surprise to enable an attack that would annihilate the bulk of the Red Army before reserves could mobilize. Destroying the Red Army would quench Hitler's hatred of the Bolsheviks and lead to the collapse of the Communist regime. The plan consisted of a series of encirclements of key regions using the Blitzkrieg model. This campaign provided a new test; previously the Germans used Blitzkrieg by employing minimal forces against poorly trained and equipped armies.[14] Barbarossa would entail vanquishing the world's largest military force and advancing over 1000 miles into enemy territory.[15] The Wehrmacht effort to develop rail and road facilities throughout central and Eastern Europe, the *Otto Programme*, was in preparation for the heavy military traffic required for the invasion. This construction effort began as early as October 1940.[16] German military planners looked for a way to delay and assuage Russian suspicion of the impending action and developed an elaborate deception campaign designed to buy time. The basic objective concerned the avoidance of a preemptive

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[13] Whaley, *Codeword Barbarossa*, 242.
[14] The French in some respects had better equipment that the Germans. The French Air Force developed a number of technologically advanced aircraft but the doctrinal theory of an "aviation component capable of reacting to every strategic, operational and tactical task" left the force virtually hollow. Anthony Christopher Cain, *The Forgotten Air Force: French Air Doctrine in the 1930's*, *Smithsonian History of Aviation and Spaceflight Series* (Washington, D.C.: Smithsonian Institution Press, 2002), 1-3. The French Army was also better equipped in reference to tanks as well. Prior to the war France had more tanks than Germany and some of these were more advanced. Williamson Murray and Allan Reed Millett, *Military Innovation in the Interwar Period* (Cambridge; New York: Cambridge University Press, 1996), 32.
[15] David M. Glantz, *Barbarossa: Hitler's Invasion of Russia, 1941* (Stroud: Tempus, 2001), 14.
[16] Whaley, *Codeword Barbarossa*, 16.

attack by the Russians before the buildup was completed.[17] "The troop movement for Barbarossa is to be seen as the greatest deception in the history of war," because the Germans not only expected to surprise the Russians, they needed to achieve a quick, decisive victory.[18]

Plan: "Guidelines for Deception of the Enemy"

The deception campaign started on 31 July 1940 and lasted until 22 June 1941, the first day of the invasion. The campaign consisted of three phases; an unofficial phase that began after the Obersalzberg conference in July of 1940 preceded a two part formalized deception plan issued by the OKW chief during February 1941.[19] German force levels along with Soviet perceptions and reaction to the increased German military presence in the East drove the timing for phase transition.

The Obersalzberg conference marked Hitler's "turn to the east" and the actual beginning of deception operations.[20] This conference laid the groundwork for the decision to invade Russia and the subsequent operations in support of that aim. As the buildup in eastern Poland under *Aufbau Ost* and later in other parts of Eastern Europe under the *Otto Programme* intensified, explanations to avert Soviet unease began to propagate.[21] The deception plan billed the increase in military presence as merely preparation for the upcoming invasion of England. Cover stories ranged from troops engaged in training maneuvers to units held in reserve out of range of allied bombers.[22]

The OKW's chief, Field Marshal Wilhelm Keitel, issued Document 12, the deception plan used for Barbarossa, in February 1941 entitled "Guidelines for the Deception of the Enemy."[23] Document 12 formalized the ongoing deception and presented a plan of action for the remaining deception operations. The official plan broke the remaining operations into two phases that would change in relation to the progress of preparations in the east and the expected Soviet reactions to those buildups.[24] Document 12 specified the timeline for the two periods as the first from February to mid April 1941

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[17] Whaley, *Codeword Barbarossa*, 170.
[18] Translation of Document 12. Whaley, *Codeword Barbarossa*, 248.
[19] Whaley, *Codeword Barbarossa*, 172.
[20] Förster, *Hitler's Decision in Favour of War against the Soviet Union*, 25.
[21] Whaley, *Codeword Barbarossa*, 172.
[22] Whaley, *Codeword Barbarossa*, 173.
[23] Whaley, *Codeword Barbarossa*, 247.
[24] Whaley, *Codeword Barbarossa*, 248.

and the second from the end of the first period to the start of the invasion.[25] "The aim of the deception is to conceal the preparations of Operation Barbarossa. This essential goal is the guiding principle for all the measures aimed at keeping the enemy misinformed. It is a matter of maintaining uncertainty about our intentions during the first [phase] that is until the middle of April. In the ensuing second [phase] the misdirection measures meant for Barbarossa itself must not be seen as any more than the misdirection and diversion for the invasion of England."

The purpose of the first phase was to maintain complete secrecy of Operation Barbarossa. Operation Sea Lion, the planned German invasion of Britain, continued as the cover story for the ever-growing number of troops and military installations in the east, even after Hitler had given up conquering Britain.[26] Officials exaggerated the size and scope of other operations with the goal of denying the existence of a buildup on the Soviet frontier. Numerous plausible cover stories were developed and rooted during the first period of the plan and enumerated in a WFSt memorandum "Guidance for the Intelligence Service."[27] The cover story presented eastward troop movements as an exchange operation for concentration of reserves for Operation Marita and as a defensive rear cover against Soviet Forces.[28] Ironically, the German High Command confidentially even informed the Russians that eastern the buildup of troops was a deception campaign aimed at the British.[29]

The second phase of the formal deception campaign began once German preparations for war reached such a level that their existence could no longer be denied. German presence became obvious and with it came a growing suspicion. The intent of the operation shifted from secrecy and concealment, to shaping Stalin's perception. The Germans passed the buildup as further preparations for Operation Sea Lion and not as an aggressive move towards Russia.[30] The Wehrmacht passed information and orchestrated a series of ploys to divert attention elsewhere to convince Stalin that the amassed forces

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[25] Jay W. Baird, *The Mythical World of Nazi War Propaganda, 1939-1945* (Minneapolis: University of Minnesota Press, 1974), 148.
[26] Glantz, *Barbarossa*, 31.
[27] Whaley, *Codeword Barbarossa*, 252.
[28] Whaley, *Codeword Barbarossa*, 248.
[29] Glantz, *Barbarossa*, 31.
[30] Baird, *The Mythical World of Nazi War Propaganda, 1939-1945*, 149.

were not intended for an eastward invasion but for a continuation of the war in the west. *Fall Haifisch* (Operation Shark), a major deception operation ordered by Field Marshal Walther von Brauchitsch, began on 24 April and involved military activities from Scandinavia to Brittany. The "second phase of deception is in operation with the aim of giving the impression that landings are being prepared from Norway, the Channel coast and Brittany, and the troop concentrations in the east are a deception exercise for the landing in England."[31]

Operation Sea Lion remained Germany's best cover story for Barbarossa. On 12 October 1940, Hitler reluctantly decided to cancel Operation Sea Lion, but he continued preparations as a means to maintain military and political pressure on Great Britain as well as for deception purposes.[32] As more troops arrived in theater, the theme of deception slightly changed in response to how the Soviets were reacting to different bits of information. The OKW maintained the invasion of Britain theme until the invasion on 22 June, but introduced other themes such as German troop concentrations portrayed as a defensive precaution against a Soviet attack due to increasing tensions in the Balkan region.[33] Other cover stories enhanced the deception as well. In August 1940, two armored divisions and ten infantry divisions deployed east into Romania to protect oil fields, and in September 1940, the Wehrmacht gave orders to the Luftwaffe to prepare for deployment to Romania for the same purpose.[34] The British invasion and German defensive themes remained to belie Soviet suspicions and ultimately led to the achievement of strategic surprise.

Transmission Channels

The extent of mobilization in preparation for the invasion of Russia was unmistakable. The Luftwaffe built forward installations and airfields as early as October 1940.[35] These newly constructed aerodromes formed a continuous chain following the rail line from Poznan to Lódź.[36] The buildup according to an Secret Intelligence Service

[31] Hinsley, *Hitler's Strategy*, 139.
[32] Hinsley, *Hitler's Strategy*, 77.
[33] Glantz, *Barbarossa*, 31.
[34] Hinsley, *Hitler's Strategy*, 93.
[35] John Erickson and David Dilks, *Barbarossa: The Axis and the Allies* (Edinburgh: Edinburgh University Press, 1994), 52.
[36] Erickson and Dilks, *Barbarossa*, 52.

(SIS) report dated 31 January 1941 described the preparations as "almost open; troops arriving in Poland from France; Russian speakers being recruited into the Army and Russian émigrés into German intelligence units."[37] With such obvious preparations for war, the German deception plans relied on vast amounts of false information to cloud and increase the ambiguity of the true information. Barton Whaley throughout his book *Barbarossa* describes over eighty different "warnings" that could have tipped Stalin off to the impending invasion. The problem for Stalin was that various intelligence and diplomatic agencies buried many of these warnings because of contradictory information deliberately placed by the German deception plan laid out in Document 12 as well as the Stalin's distrust of capitalists and even in his internal staff. One could argue that the German deception plan merely had to augment Stalin's self-deception.

In order for Stalin to accept the ruse, the German agencies infused the false signals, designed to portray the false story, imperceptibly amongst noise and true signals passed via the many information channels available to the Soviet leadership and intelligence agencies. The Barbarossa deception operation outlined in Document 12 dictated the coordinated use of channels to convey the deception. German deceivers managed the coordination of transmission channels with the "efficient use of the general policy of going only through the channels established by the Chief of the Abwehr."[38] More specifically, "The latter channels infiltrate false intelligence among the routine information of our attachés in neutral countries and the neutral attachés in Berlin" shows the primary channel was through the established diplomatic relationships established as a result of the 1939 nonaggression pact.[39] The Abwehr used a combination of both open and closed sources to reinforce the coherency of the entire deception campaign against the Russians and the other allied intelligence services.

Closed Channels

The Abwehr and the *Sicherheitsdienst* (Security Service or SD) acted in a dual role. For the deception to succeed the Germans had to deny Soviet intelligence sources authentic information while opening channels to pass disinformation. The Abwehr tried many avenues to infiltrate spies into the Russian system, including via Lithuania,

[37] Erickson and Dilks, *Barbarossa*, 52.
[38] Document 12. Whaley, *Codeword Barbarossa*, 249.
[39] Whaley, *Codeword Barbarossa*, 249.

Romania, Bulgaria, and China, with paltry results.[40] After the 18 December directive, Lt General Alfred Jodl barred the Abwehr from conducting any strategic espionage to avoid provoking a Russian response that would foil the deception.[41]

However, this did not prevent the Abwehr from recruiting and using double agents or unknowing Russian agents. Three days after the Soviets signed the Non-aggression Pact they assigned Amaiak Kobulov to the Berlin office of the Department of the NKVD's Chief Directorate for State Security (NKVD/GUGB).[42] Kobulov was hardly qualified for the job, considering that he spoke no German, but Stalin needed someone in Germany he could trust. Kobulov's duties entailed recruiting and developing new agents within Germany. His status and relationship allowed him direct access with Stalin, bypassing the NKVD specialists in reporting information.

In August of 1940, Kobulov met with a perspective recruit named Oreste Berlinks. Berlinks was a Latvian journalist willing to provide information to the NKVD using the guise of support for the Soviet incorporation of Latvia. Given the codename Litseist, Berlinks, through Kobulov, had direct access to Stalin. The NKVD did run background checks on its new source, which led to disturbing information. In Latvia, it seems Berlinks was opposed to Soviet intervention and was a known source of pro Nazi propaganda. Despite the warnings from the NKVD, Kobulov passed information supplied by Berlinks to Stalin. Some of the information tied directly to the deception themes outlined in Document 12. Information sent via this channel includesdthe German plans for Sea Lion, the reluctance of Hitler to embark on a two front war, and the defensive nature of the buildup in Eastern Europe.[43] Each of these reinforced themes of the deception plan.

Lack of high-level presence of German spies in Russia did not deter the German deception plan. The Abwehr looked inside Germany's borders and used double agents as channels of information to support the flow of disinformation. The use of these agents

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[40] David Kahn, *Hitler's Spies: German Military Intelligence in World War II* (New York: Macmillan, 1978), 452.
[41] Kahn, *Hitler's Spies*, 454.
[42] The NKVD was the People's Commissariat for Internal Affairs in Russia. David E. Murphy, *What Stalin Knew: The Enigma of Barbarossa* (New Haven: Yale University Press, 2005), 189.
[43] Murphy, *What Stalin Knew*, 181-83.

was not the only way the deception planners input false signals into the Russian intelligence system.

The difficult inroads to Stalin's high command did not stop German attempts to foster the deception during both phases of the operation. The following examples show the German extent of effort to reinforce the plan and to show the Russians what they wanted to show and hide the reality. German agencies staged ploys to insure Soviet intelligence interception, knowing the information would make its way to Stalin. To perpetuate the Operation Sea Lion deception, the Luftwaffe appointed English interpreters and issued newly printed English maps.[44] The Army High Command "closed" certain areas around the channel and in Norway in cooperation with the Abwehr to offset heavy troop concentrations in the east.[45] To foster the belief that the eastern deployment of troops was purely defensive, the Russian NKGB was encouraged "to learn of a few static defenses."[46] OKW orders for troops moving towards the east incorporated a preamble describing the concentration of troops as purely defensive and as a deterrent against a Russian attack. The German Army Group staff even bought into this rationale for the massive troop deployment.[47] Bolstering of the western front with the deployment of twenty-one divisions (allegedly of second-class quality) to Belgium and northern France clouded the eastward movement of troops. This westward troop movement accompanied an increasingly heavy attack on Britain by the Luftwaffe in May of 1941.[48] Faked letters from German soldiers to their families bore counterfeit Russian postmarks and described cooperative military operations with the Russians.[49]

Open Channels

For a coherent deception strategy, the closed channels of transmission had to work in concert with the open channels. Various Nazi propaganda and intelligence agencies manipulated the open channels to Russia to take advantage of the closed nature of its society and the paranoia of its leader. The most direct open channel to Stalin was the diplomatic avenue and remained active up until the invasion. Vyacheslav Molotov, the

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[44] Whaley, *Codeword Barbarossa*, 250.
[45] Whaley, *Codeword Barbarossa*, 249.
[46] Whaley, *Codeword Barbarossa*, 29.
[47] Whaley, *Codeword Barbarossa*, 174.
[48] Erickson and Dilks, *Barbarossa*, 54.
[49] Whaley, *Codeword Barbarossa*, 176.

Soviet Foreign Commissar, and Joachim Ribbentrop, the German Foreign Minister, were at times both pawns and pivotal actors within the political arena of the charade.

The military attachés gathered information about the host country in a number of different ways. They gathered information distributed by the host force, observed military parades and maneuvers, attended lectures, read open sources such as newspapers and published literature, and interacted with colleagues and government officials.[50] Especially during the first phase of the deception, Hitler attempted to maintain normal diplomatic and economic ties during the military buildup. This meant that Germany continued to honor the negotiated exchange of Russian raw materials such as grain and oil for German manufactured goods that the 1939 Pact delineated; it even received top priority.[51] Although benefiting both parties, a second German-Soviet economic agreement on 19 January 1941 extended the economic charade. Support for the promised economic obligations towards the Russians came at the expense of Wehrmacht armament industry orders, but Hitler saw this as a necessary cost to cultivate the deception.[52]

Hitler himself engaged in spreading disinformation to Stalin via the diplomatic channel. In a letter, dated December 31, 1940, less than two weeks after signing the directive ordering the Wehrmacht to prepare to "crush Soviet Russia in a quick campaign," Hitler addressed Stalin directly.[53] The letter established the foundation for themes later formalized in the Document 12 and started shaping Stalin's perception. Hitler explained the military buildup to Stalin by stating, "The approximately seventy divisions that I must keep in the Government General are undergoing reorganization and training in an area inaccessible to English aviation and intelligence."[54] He also seized the opportunity to introduce further ambiguity to the various signals that Soviet intelligence would receive. Hitler warned Stalin that the British would attempt to "fabricate all possible foolish rumors."[55] These rumors would most likely center on an impending German invasion of Russia. He added that as the invasion of England grows closer, "the intensity of such rumors will increase, and fabricated documents will perhaps be added to

[50] Kahn, *Hitler's Spies*, 75.
[51] Whaley, *Codeword Barbarossa*, 176.
[52] Förster, *Hitler's Decision in Favour of War against the Soviet Union*, 45.
[53] Whaley, *Codeword Barbarossa*, 253.
[54] Murphy, *What Stalin Knew*, 256.
[55] Murphy, *What Stalin Knew*, 257.

them."[56] In a stroke of genius, Hitler even tipped off Stalin that "appropriate German offices" would circulate some of these rumors. Hitler took full advantage of his direct contact with Stalin and began to shape the Russian leaders perceptions by introducing ambiguity and doubt to everything that Stalin would hear and see leading up to the invasion.

As the eastern military buildup continued, more overt means were needed to continue the deception. Operation Shark, as mentioned earlier, used the diplomatic open channels as its primary means of transmission. The operation involved a series of "secret" notices to German military attachés in nine embassies including the one in Moscow. The message downplayed the growing rumors of the inevitable breakout of war on the eastern front with Russia and announced the removal of eight German divisions from the Soviet border. By design, this information was leaked to Soviet intelligence.[57]

Countless rumors released through propaganda channels reinforced the official notices of Operation Shark. Mass rumors circulated among many of the Allies of possible German initiatives and troop buildups across the Mediterranean. Barton Whaley classified these rumors into three categories based on their source: "authentic information posing as a rumor, misleading information spread as part of the deliberate German Deception Campaign, and plausible speculation."[58] The Germans intentionally spread baseless rumors simply to overwhelm the diplomatic and intelligence channels with large amounts of information that required at least cursory analysis before dismissal. The use of propaganda, described in Joseph Goebbels' directive "Guidelines for Execution of NSDAP Propaganda," outlined the different channels and means he expected to employ to disseminate the Party's message. "The means included the radio and newspapers, mass meetings, illustrated lectures, films, posters, brochures, pins and 'whisper' or person-to-person propaganda" as ways to pass information to the German people but also as a channel for deception misinformation.[59]

The Germans relied on mass media to spread the disinformation produced by the Nazi propaganda machine. Dr. Joseph Goebbels, Germany's propaganda minister

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[56] Murphy, *What Stalin Knew*, 257.
[57] Whaley, *Codeword Barbarossa*, 173.
[58] Whaley, *Codeword Barbarossa*, 177.
[59] Baird, *The Mythical World of Nazi War Propaganda, 1939-1945*, 24.

published an article in the *Völkischer Beobachter* (the state newspaper) that "disclosed" the inevitable invasion of England. Once this article reached the foreign press, German police publicly withdrew it. The deception added a touch of coherency by simulating a public disgrace of Goebbels himself.[60] Goebbels also staged press conferences with foreign correspondents in front of a large map of England to continue to divert attention to the growing German presence in the east.[61] Even the official Soviet news agency, TASS, contradicted rumors of a looming war with Germany in a radio and written press statement and denied the existence of German troop concentrations at the Soviet borders.[62]

Person-to-person propaganda or *Mundpropaganda* (word of mouth) became a way for information to reach foreign intelligence without the taint of official governmental channels. The Propaganda Ministry launched several rumors including the gathering of troops, specially trained in amphibious assault, along the Channel coast.[63] Orchestrated *Mundpropaganda* carefully created a coherency and validation of disinformation received through more traditional open sources. The additive nature of the signals from varying sources lent credence to the overall plan and increased the gradual acceptance of the deception campaign by Stalin.

Feedback

The Third Reich had numerous channels capable of facilitating the flow of feedback for the deception campaign. The *Informationsstelle III*, an unconventional diplomatic spy service, the *Sonderdienst Seehaus*, radio-news monitoring service, *Deutsches Nachrichten Büro*, the official press agency and source of foreign news, and the *Forschungsamt*, a thinly veiled agency responsible for tapped phones, intercepted diplomatic, commercial and press radio messages along with deciphering of codes, were some of the main organizations that could gauge vital information about Stalin's acceptance of the German charade.[64] The Nazi party itself morphed its organization responsible for party protection and expanded it into foreign intelligence. The Security

[60] Whaley, *Codeword Barbarossa*, 173-74.
[61] Baird, *The Mythical World of Nazi War Propaganda, 1939-1945*, 150.
[62] Förster, *Hitler's Decision in Favour of War against the Soviet Union*, 50.
[63] Baird, *The Mythical World of Nazi War Propaganda, 1939-1945*, 26.
[64] Kahn, *Hitler's Spies*, 55.

Service spawned a new branch, Branch III Ausland, to cover the foreign intelligence role.[65] In 1939, this branch merged with the Security Police Administration to become Department VI, foreign intelligence of the Reich Security Main Office.[66] Despite these many organizations, Hitler unenthusiastically solicited feedback.

The German's contemptuous attitude towards the Russians, coupled with a secretive adversary, translated into a lackadaisical approach towards feedback among the Germans. The OKW's "appraisal of the Soviet potential, especially the presumed inferiority of the Soviet leadership, was compounded of an exaggerated belief in Germany's military strength after her rapid victory over France, the 'historical enemy', a sense of cultural superiority vis-à-vis the Slav world, and an anti-Bolshevik estimation of the enemy, colored by a latent anti-Semitism."[67] Despite the numerous available options, gathering feedback did not come easily.

From the beginning of the Third Reich, it was difficult to gather information from Russia. The military relationship between Germany and Russia quickly dissolved with the appointment of Hitler as chancellor in 1933. The closed Russian society heightened the mutual distrust between the government and leaders. The Soviet press was tightly controlled and travel within the Soviet Union was restricted, hampering many avenues of feedback typically available to the Germans.[68] The Russians learned their lesson from Tannenberg and greatly improved their radio discipline and cipher procedures, complicating the German intercept problem.[69] Consequently, "German radio intelligence failed to obtain solid information on how big the Red Army really was," and failed to determine the effects of their deception campaign on Russian readiness.[70]

One German success in the area of feedback was reconnaissance. Lieutenant Colonel Theodor Rowehl, in charge of the Reconnaissance Group of the Commander in Chief of the Air Force, established four squadrons and began hundreds of reconnaissance

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[65] Kahn, *Hitler's Spies*, 58-59.
[66] Kahn, *Hitler's Spies*, 60.
[67] Förster, *Hitler's Decision in Favour of War against the Soviet Union*, 27.
[68] Kahn, *Hitler's Spies*, 448.
[69] In August 1914 a German officer during the First World War, intercepted Russian maneuver plans. This actionable intelligence led to the utter defeat of the Russian forces in the Battle of Tannenberg. Kahn, *Hitler's Spies*, 451.
[70] Kahn, *Hitler's Spies*, 451.

flights over the Soviet Union after Hitler's Directive No. 21.[71] These flights photographed industrial targets and the newest construction on Soviet field fortifications allowing Hitler to postulate on the Red Army's status of forces.[72] These photographs could not give an indication of Stalin's acceptance of the deception, but in combination with other tidbits of information gathered through multiple sources, Hitler's staff could decipher overall acceptance of the deception operations.

Target's Perception

Werner Wächter, a German Propaganda Ministry official, described the times as "the age of whispering propaganda," alluding to the vast numbers of rumors that surrounded Barbarossa.[73] The deception themes "were mutually supporting, and were well calculated to fit the preconceptions of their enemies at each stage of the developing operation."[74] The mutual distrust between Stalin and Hitler grew with the successive military accomplishments of the German war machine. Stalin was both impressed and concerned over the swift victories the German Blitzkrieg had amassed on the western front. In June 1940, Stalin occupied the Baltic States and Bessarabia, well within his rights accorded by the 1939 agreement. This action infuriated Hitler who despised any gain in the Soviet sphere of influence.[75] The Russians continued to occupy the Baltic States, which placed further strain on the tenuous relationship. Hitler also believed that if he attacked Britain, it would invite an attack from the east while Stalin believed that Hitler would not be foolish enough to conduct a two front war. "Stalin's false expectation [of a preceding ultimatum from Hitler before any attempted invasion] was the direct effect of Hitler's campaign to manipulate the victim's information, preconceptions, conclusions and decisions."[76]

How did Hitler gain insight on Stalin's perception? Understanding the target's perception is crucial to the success of any deception campaign. The deception must play into the preconceived notions of the intended target. For Hitler's Barbarossa plan, this is exactly what happened. The second phase of the campaign outlined in Document 12

[71] Kahn, *Hitler's Spies*, 119.
[72] Kahn, *Hitler's Spies*, 120.
[73] Whaley, *Codeword Barbarossa*, 179.
[74] Whaley, *Codeword Barbarossa*, 172.
[75] Erickson and Dilks, *Barbarossa*, 18.
[76] Whaley, *Codeword Barbarossa*, 242.

capitalized on Stalin's perception of idea that Germany sought victory in the West before Hitler would dare turn to the east. Stalin chose to believe the deception and the streams of disinformation and ignored numerous warnings because the German information accorded with Stalin's preconceptions. Hitler manipulated the situation by continually placating Stalin with economic agreements that put promised German goods ahead of the needs of a warring Wehrmacht.

The deception of Barbarossa occurred at the highest level; Hitler deceived Stalin. Hitler entered into a nonaggression pact with no intention of honoring it. The objective and plan intended to provide strategic surprise when masses of German troops and squadrons of Luftwaffe aircraft streamed into Russia. The deception used numerous open and closed channels to transmit signals while relying on feedback channels to determine the Stalin's acceptance of the signals. In the end, Stalin's perception, manipulated by Hitler's deception campaign, left Russia completely surprised on the morning of June 22.

The means of the deception campaign used 1940's technology. The next case study involves a similar strategic deception campaign aimed at the Israeli leadership. Sadat, in conducting the Badr deception, had the advantage of thirty-two years of technological advancements to aid in the execution deception campaign.

Chapter 3

Sadat's Surprise of October

Egyptian President Anwar Sadat on 24 October 1972 secretly declared the end of "No Peace-No War" that resulted in the status quo between Egypt and Israel in existence since the end of their War of Attrition in 1970. This decision announced in front of the convened Armed Forces Supreme Council, amounted to a covert declaration of war, and showed Sadat's determination to avenge the defeat of the earlier wars.[1] He wished to upset the prevailing balance in the region, create a united Arab stand against Israel and to restore land lost in the 1967 and 1970 wars.[2] His means to accomplish these goals involved offensive military operations to liberate the occupied areas and inflict massive casualties on the Israelis. The enabler for Sadat's plan was strategic surprise using deception.

The genesis of the plan began taking shape in early 1972. Sadat felt compelled to act after his self-proclaimed "Year of Decision" yielded only saber-rattling rhetoric towards Israel. In response, he developed Operation Spark to alter the stagnant situation in the Middle East. The plan sought only a small tactical military victory but promised a strategic political victory. Sadat's intent was to "spark" an international crisis that would draw both the US and USSR politically into the conflict. Ultimately, he aimed for the Cold-War superpowers to force the Israelis to accept concessions more favorable to the Arab nations in the region.[3]

Capitalizing on the on going Cold War, Sadat continually played on the growing tensions and used his relationship with the Soviet Union to bolster the military capability of his forces. Egypt needed to correct capability gaps exposed during the 1967 conflict. The military wanted long-range bombers and Surface-to-Surface Missiles (SSMs) both

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[1] Uri Bar-Joseph, *The Watchman Fell Asleep: The Surprise of Yom Kippur and Its Sources*, *Suny Series in Israeli Studies* (Albany: State University of New York Press, 2005), 11.
[2] Bar-Joseph, *The Watchman Fell Asleep*, 12.
[3] Edgar O'Ballance, *No Victor, No Vanquished: The Arab-Israeli War, 1973* (Novato, CA: Presidio Press, 1997), 15.

capable of striking deep inside Israel to modernize the force. The Soviets, however, refused Sadat's pleas for "offensive weapons," which caused a deterioration of Egyptian-Soviet relations. The relationship continued to break down and eventually led to Sadat's expulsion of Soviet military and civilian advisors and technicians.[4] Sadat would leverage this situation when developing themes for the deception campaign.

With only minimal material help from the Soviets, Major General Ahmed Ismail, both minister of war and commander in chief of Egyptian armed forces, began campaign planning to accomplish both the military and political goals outlined by Sadat. The plan called for an assault along the entire length of the Suez Canal to overcome the Bar Lev line, a series of defensive structures built by the Israelis, and then an advance into the Sinai to dig in and await the inevitable counter attack.[5] Sadat did not need a larger scale incursion because he believed that either the Soviets or Americans would intervene quickly. Early in 1973, Sadat approved the initial concept and planning of Operation Spark but widened it to include a simultaneous action from Syria. On April 2, the Egyptians and Syrians held the first of a series of joint planning meetings that laid the groundwork for military and political cooperation in handling their mutual enemy. The expanding scope of operations met with a renewed vigor in arms support from the Soviets. In the first six months of 1973, the Egyptians received more arms than in the previous two years.[6] After considerable political wrangling, Egypt and Syria set the invasion date, 6 October 1973.

This date has religious implications for both the Arabs and the Israelis. For the Muslims, it fell during Ramadan, a month in which they fasted during the day. The Egyptians felt the Israelis would least expect an attack during a Muslim holy month. Likewise, for the Israelis, the date coincided with Yom Kippur, the holiest day in the Hebrew calendar. During Yom Kippur, most Jews are in synagogues and are fasting for 24 hours while most of the country shuts down for the observance.[7] Additionally, 6 October was the tenth day of Ramadan, the traditional celebration of the anniversary of

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[4] Michael I. Handel, *Perception, Deception and Surprise: The Case of the Yom Kippur War* (Jerusalem: 1976), 29.
[5] O'Ballance, *No Victor, No Vanquished*, 22-24.
[6] O'Ballance, *No Victor, No Vanquished*, 34.
[7] Joseph Finklestone, *Anwar Sadat: Visionary Who Dared* (London, England: Cass, 1996), 102.

the ancient Battle of Badr won by the Prophet Mohammed. The military part of Operation Spark was renamed Operation Badr in honor of the prophet's victory in 626 AD. [8]

The Yom Kippur War, or the War of Ramadan, began at 1400 on 6 October 1973. Israel was completely surprised and that surprise initially cost them dearly. "The success of the Egyptian and Syrian armies, during the war's first day, in occupying the 'Bar-Lev' defense line along the Suez Canal as well as considerable portions of the Golan Heights, and the loss of 300 out of 500 tanks that defended Israel when the war started, posed the most serious threat to Israel's existence since the 1948 War."[9] Strategic deception afforded Sadat the necessary means to bring his vision to the battlefield with an initial flurry of success.

Objective

The 1967 War served warning to Egypt that Israel would meet any impending confrontation with the Arab nations with a pre-emptive attack. The Israeli military-economic system, honed from spasmodic conflict since the inception of the nation in 1947, could quickly switch from an industrial society to a military force.[10] At the slightest hint of military action, Israel would set off a "meticulously detailed, lightning mobilization plan – reportedly the most efficient of any armed force in the world," and unleash a coordinated air and land attack against the perceived threat.[11] Based on the supposition that their intelligence system could provide twenty-four to forty-eight hour advance warning of an impending attack, Israel's military doctrine was to launch a pre-emptive or "interceptive" attack.[12] Sadat faced a formidable task to prepare for war and avoid provoking an Israeli attack. He decided to use deception to accomplish this task.

Sadat and Ismail designed the deception plan to thwart a preemptive attack by the Israelis during the military buildup and to give the Egyptians the early operational advantage. Sadat believed surprise was pivotal for achieving victory and indicated as much by stating, "He who wins the first twenty-four hour encounter will surely win the

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[8] O'Ballance, *No Victor, No Vanquished*, 38.
[9] Bar-Joseph, *The Watchman Fell Asleep*, 1.
[10] D. K. Palit, *Return to Sinai: The Arab Offensive, October 1973* (Dehra Dun: Palit & Palit Publishers, 1974), 44.
[11] Palit, *Return to Sinai*, 44.
[12] Handel, *Perception, Deception and Surprise*, 51.

entire war."[13] The objective of the Egyptian deception plan was thus to "throw the Israeli response mechanism out of gear" in an attempt to delay the inevitable Israeli response.[14] Pessimistically, Egypt assessed that Israel would know of an impending war fifteen days before the invasion began.[15] According the Sadat, "the critical point was to prevent the Israelis from pre-empting before the 3rd of October: an Israeli attack before that date 'would have been fatal'; an Israeli attack after that date would run into a fully deployed and ready Egyptian and Syrian forces."[16] The deception plan expected to achieve the objectives of decreasing the Israeli warning-span to five days and delay an Israeli mobilization.[17]

Plan

General Ismail saw the importance of planning the deception campaign by claiming, "In war there are two plans, one an operations plan and the other a decoy plan."[18] The Egyptian military not only relied on the Soviets for military hardware but also incorporated Soviet doctrine in their planning. Although with considerable Arab cultural contributions, "the Egyptian deception plan, which was completed around January 1973, was based on the Soviet concept of 'maskirovka' –which embodies the achievement of surprise at the strategic, operational, and tactical levels."[19] The Egyptian deception plan had three themes. The first theme of the deception plan attempted to dull Israel's attentiveness to Egyptian military readiness status using the "cry wolf" method.[20] The second deliberately created the impression that Sadat had forgone any military action in favor of the pursuing victory on the political battlefield. Egypt carried this out purely on the strategic level but it would have dramatic results down to the battlefield. The third theme was a lack of preparedness and ability of the Egyptian military to conduct

[13] Anwar Sadat, *In Search of Identity: An Autobiography*, 1st ed. (New York: Harper & Row, 1978), 244.
[14] Palit, *Return to Sinai*, 45.
[15] Bar-Joseph, *The Watchman Fell Asleep*, 25.
[16] Daniel and Herbig, *Strategic Military Deception*, 322.
[17] Bar-Joseph, *The Watchman Fell Asleep*, 25.
[18] O'Ballance, *No Victor, No Vanquished*, 25.
[19] Bar-Joseph, *The Watchman Fell Asleep*, 25.
[20] Bar-Joseph, *The Watchman Fell Asleep*, 27.

successful military action against a "superior" Israeli force.[21] All three prongs or messages of the deception plan aimed at providing the Egyptians the element of surprise, both strategically and tactically, for the critical first phases of the operation.

Cry Wolf Syndrome

The first theme was intended to lull the Israeli intelligence agencies into complacency by forcing continual reactions to signals of impending invasion that never materialized into any real Egyptian offensive military action. The centerpiece of this portion of the plan involved convincing the Israelis that the military buildup on the border was only part of a large scale, routine crossing exercise known as Tahrir 41.[22] The Egyptians had conducted this exercise twice a year since 1968. The scale varied from staff level exercises to full military deployments to the front line. The dual purpose not only prepared the military for war, it conditioned Israeli collection systems to normalized movements along the front. Complimentary to the Tahrir exercises was the mobilization and demobilization of reserve soldiers. Egypt conducted twenty-two mobilization exercises of reserve troops from early 1973 until the start of the war. Three of these mobilizations, consisting of over 120,000 reserve soldiers, occurred in the last ten days before the attack. To complete the picture for the Israelis, the Egyptians, starting September 22, performed repeated alert exercises of the Egyptian Air Forces.[23] During the same period, the Egyptians sent contradictory signals clamoring for a peaceful political solution to the tensions in the Middle East.

Political not military

In the second branch of his deception plan, Sadat set out to convince international opinion that Egypt desired a peaceful solution to the Sinai occupation and did not want to risk further direct military conflict with the Israelis. The Middle East had been a cauldron of turmoil for ages and Egypt attempted to capitalize on manipulating Cold War tensions to better its strategic position in the region. Any rise in military tension usually

[21] Zeev Schiff, *October Earthquake: Yom Kippur 1973* (Tel Aviv: University Pub. Projects, 1974), 23-24.
[22] Bar-Joseph, *The Watchman Fell Asleep*, 27.
[23] Bar-Joseph, *The Watchman Fell Asleep*, 27.

brought in the US and USSR to try to deescalate the situation. Sadat widened the political scope of the deception by including the United Nations as part of the ruse.[24]

To bolster the image of non-military action, the plan portrayed a "business as usual atmosphere" in Egypt. Normal military schools such as the War College and School of Staff and Command were both to resume classes on 7 October after the completion of the Tahrir exercises. Even Morgan oil field, on the western side of the front, would remain open despite its proximity to the front.[25]

Weak Military

Finally, the prevailing view of the Egyptian military in the West and Israel was that it was weak and incompetent.[26] This message formed the third theme of disinformation for Egypt's Badr deception. The plan intended to reinforce this perception and capitalize on it. The belief that Israel only needed 48-hour notice to fend off an attack epitomized Israel's self-perceived superiority. The Israelis further believed the Egyptians were inept in canal crossing and forces that did make it across would be under equipped and disorganized. The eviction of Soviet advisors and technicians helped perpetuate the view of Egyptian ineptness and lack of preparedness for offensive military action. Egypt spread rumors that its aerial defense system and anti-aircraft missile batteries were technically deficient because of the expulsion of Soviet technicians during the summer.[27]

Transmission Channels

The Egyptians now had to transmit the three themes of the deception plan to the Israelis. The themes of cry wolf syndrome, business-as-usual, and a weak military became the perceptions that Sadat desired Israel's leadership to develop. Sadat and the deception planners transmitted signals to cultivate and shape the target's perceptions into this desired alternative reality. Accomplishing this task required a coordinated effort and the transmission of signals on all available channels.

Closed Channels

The use of an Egyptian double agent is a hotly debated topic, even 30 years after the war. Originally revealed as a secret savior of Israel, some believe that Ashraf Marwan

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[24] Sadat, *In Search of Identity*, 244.
[25] Bar-Joseph, *The Watchman Fell Asleep*, 28.
[26] Daniel and Herbig, *Strategic Military Deception*, 324.
[27] Schiff, *October Earthquake*, 24.

was not only a Humint source for the Israelis but also he was a double agent intended to carry the deception to the highest political and military leaders of Israel.[28] At the center of the controversy is a spy known as "Top Source" or "The Source" in Israeli after action reports about the war. This source was a walk in for the Mossad and promised important strategic intelligence.

The source originally contacted Mossad agents in the Israeli embassy in London in 1969. Abraham Rabinovich, a noted author and journalist, portrayed him as politically and militarily connected to the highest levels of the Egyptian regime.[29] Ashraf Marwan was a confidant of both Nasser and Sadat, a roving ambassador, and the presidential intelligence service coordinator. Marwan provided the Israelis with verbal intelligence and written documents that included strategic Egyptian war plans, Soviet arms negotiations, and secret protocols.[30] The information provided by Marwan shaped Israeli perceptions of Egyptian capabilities but more importantly their intentions.

Marwan took a more active role in the deception by facilitating the cry wolf syndrome. He warned the Israelis on two occasions of impending Egyptian military action, December 1972 and again April 1973. On both warnings, the Israelis fully mobilized, however no action ever materialized. In January 2003, the Egyptian press revealed that Marwan had indeed met with the Mossad in May of 1973 and "cried wolf," proclaiming an impending Egyptian invasion that failed to materialize.[31] General Eli Zeira, head of Aman (Military Intelligence), claims that not only did Marwan participate in the cry wolf deception but also validated Israel's assumption for the condition's Egypt required before pursuing an offensive attack into the Sinai.[32] This chapter addresses these assumptions later.

In the past, Israeli intelligence relied heavily on Jews that remained in many of the Arab countries. These people often reached high levels within the military and the government; however, their numbers had severely dwindled by 1973. As a result, Israeli

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[28] Abraham Rabinovich, *The Yom Kippur War: The Epic Encounter That Transformed the Middle East*, 1st ed. (New York: Schocken Books, 2004), 504.
[29] Rabinovich, *The Yom Kippur War*, 22.
[30] Bar-Joseph, *The Watchman Fell Asleep*, 48.
[31] Howard Blum, *The Eve of Destruction: The Untold Story of the Yom Kippur War*, 1st. ed. (New York: HarperCollins, 2003), 331-32.
[32] Bar-Joseph, *The Watchman Fell Asleep*, 6.

intelligence had switched from a reliance on Humint to a more "mechanical" intelligence that leveraged technological advances of the day. Aside from borrowing information gathered from US satellites and high altitude airborne reconnaissance platforms, they gathered information via electronic eavesdropping and radar surveillance.[33] The Israelis intercepted known frequencies of military and government communications along with telephone conversations in both Egypt and Syria. The ELINT specialists published a daily layout of radio frequencies for every SAM battery in both countries, demonstrating the all-encompassing nature of the Israeli collection system.[34] Although the Israelis collected more data, the switch to an intelligence gathering system less reliant on human sources had an unintended effect of aiding the Egyptian deception scheme by making it more difficult for Israel to assess Sadat's intention. After the fact, the Israelis claimed to have collected plenty of evidence of unusual Egyptian military activities along the front, but failed to judge accurately Egyptian morale and intentions.[35]

Sadat's deception plan called for the Israelis to "see" traditional signals of preparation of a typical offensive military action. The plan called for three major mobilizations of Egyptian troops in May, August, and again in late September 1973 for Israeli intelligence consumption.[36] The first two buildups garnered the expected response, a rapid mobilization of the Israeli machine. In fact, between January and 6 October 1973, the Egyptian military called up reserve units on at least twenty occasions.[37] This process enabled the Egyptians to mobilize quickly and desensitize Israeli intelligence to the same; the information signals that Israel received hinted at but never amounted to any aggressive military action. Three final mobilizations took place just days before the invasion bringing over 120,000 reserve soldiers on active duty. This last surge generated no significant response from Israel.[38]

The plan played on a razor's edge, wanting the Israelis to mobilize for war, but not execute a preemptive attack. The Egyptians increased the ambiguity of the signals by carefully characterizing the large troop movements as part of the Tahrir 41 exercise.

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[33] Palit, *Return to Sinai*, 61.
[34] Blum, *The Eve of Destruction*, 73.
[35] Palit, *Return to Sinai*, 61.
[36] Daniel and Herbig, *Strategic Military Deception*, 323.
[37] Handel, *Perception, Deception and Surprise*, 33.
[38] Bar-Joseph, *The Watchman Fell Asleep*, 27.

They also broadcast exercise orders in the open whereas end of exercise messages switched to secure landlines to add confusion for Israeli eavesdroppers.[39] Ammo trucks arrived at the front obviously empty. Unbeknownst to the Israelis, the ammo had already been pre-positioned using the Al-Jamasi rail line and hidden in underground bunkers along the front. In addition, the military shipped special equipment used for bridging and canal crossing to the front in crates to conceal its identity.[40] Further confusing Israeli intelligence, troops forward deployed during daylight hours, but redeployed under cover of darkness. This procedure allowed only half of the troops to redeploy and resulted in an unseen buildup of troops at the front.[41]

The Egyptians hid activities that were suspicious, even under the auspices of an exercise, amongst actions that seemed to bolster their defensive posture and perpetuate the weak military myth. Defensive fortification improvements were easily visible to the Israelis and helped account for increased Egyptian activities. General Ismail improved the defenses on the west bank by constructing ramparts and observation posts along the front. Stockpiling ammunition and improving field communication systems occurred along with a simultaneous strengthening and raising the heights of the sand barriers opposite the Bar-Lev line.[42]

On 28 September, members of the Saiqa, a Syrian branch of the Fedayeen, hijacked a train in Austria, took hostages, and demanded the closure of a camp used in transitioning Jews out of the Soviet Union. The Austrian chancellor agreed to the demands, angering the Israelis. It was widely anticipated that Israel would retaliate for the terrorist acts. The heightened tension served as an additional cover story for the "defensive" posturing of Egyptian and Syrian forces.[43]

To facilitate the weak military theme, the government spread a series of memos that described the effects of the Soviet expulsion in July 1972. The stories told of deteriorating Soviet equipment and the inability of the Egyptian replacements to either

[39] Daniel and Herbig, *Strategic Military Deception*, 328.
[40] Daniel and Herbig, *Strategic Military Deception*, 327.
[41] Daniel and Herbig, *Strategic Military Deception*, 327.
[42] Palit, *Return to Sinai*, 47.
[43] O'Ballance, *No Victor, No Vanquished*, 43-44.

operate or maintain the equipment to any acceptable level.[44] Sadat and Ismail orchestrated the perception of an unmotivated and unprepared military even down to the tactical level. The "lazy unit" is a perfect example that reinforced the Israelis' perception of Egyptian ineptitude. This unit did not wear helmets or carry guns but instead portrayed a relaxed atmosphere, even during times of crisis and tension, by playing games of soccer and fishing along the contested front.[45]

Open Channels

Sadat effectively used open channels in addition to closed channels to pass his three-themed message to the Israelis. The distinction between mass media and propaganda channels blur in the Middle East. In this region, media represents a significant contributor to the usually high level of noise in politics, increasing the difficulty in determining deception from real intent. Additionally, Arab governments heavily control regional and local radio stations and newspapers with the net effect of an Arab mass media that is continually engaged in disinformation.[46]

The deception plan capitalized on the ambiguous message of Arab mass media and synchronized troop movements to desensitize Israeli intelligence. Sadat used the "media and massed troops near the canal in May 1973 to give the impression that war was imminent."[47] The coverage caused the expected mobilization of Israeli troops. This scenario replayed itself again in August with similar results; mobilized troops awaiting an attack that never materialized.[48] Sadat stated, "I had no intention of starting a war in May, but as part of my strategic deception plan I launched a mass media campaign then and took various civil defense measures which led the Israelis to believe war was imminent."[49]

Reinforcing Israeli complacency that resulted from spasmodic mobilizations, Sadat spoke publicly of going to war on 28 September 1973 adding ambiguous signals amongst the high level of noise. From the Israeli perspective, this was continued rhetoric experienced in Sadat's "Year of Decision" because no rational head of state planning a

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[44] Daniel and Herbig, *Strategic Military Deception*, 325.
[45] Blum, *The Eve of Destruction*, 85.
[46] Daniel and Herbig, *Strategic Military Deception*, 320.
[47] Finklestone, *Anwar Sadat*, 84.
[48] Finklestone, *Anwar Sadat*, 84-85.
[49] Sadat, *In Search of Identity*, 241.

surprise offensive would announce their plans publicly in advance.[50] Sadat's speeches also emphasized political overtones over military actions, which lead the Israelis to believe that all indications were mere saber rattling of an Arab leader facing increasing domestic pressure to appear tough in face of the enemy.

Egyptian and Arab media gave the Tahrir exercises held along the front maximum coverage. The "shows of force" were portrayed as a means to quell anticipated student unrest and riots because of inaction from the "No War – No Peace" situation.[51] The media presented the stories as if they were related and gave plausibility to the perception that the exercises were mainly for domestic reasons.

To bolster the image of a political ploy, the military, in addition to the exercises, accentuated normal activities in the press. *Al Ahram*, an influential Cairo newspaper, announced on 2 October, "Lists were open for officers who wished to make the Oomrah, or Little Pilgrimage to Mecca."[52] Another article in the paper reported that the Egyptian war minister was to meet with the Romanian minister of defense.[53] Both of these articles reinforced the perception of "business as usual."

The third type of message supported the notion of a weak military. The *Financial Times* reported in late 1972 that not only did Egypt lack offensive military capabilities, but it also lacked the necessary equipment and training to ward off an Israeli invasion.[54] The *New York Times* reported that the performance of their Egyptian counterparts disillusioned the Soviets and this was in fact a major source of the tension between the two nations. The article quoted a number of government officials but the reporters were unaware much of the information was deliberately planted by Lt General Shazly, the Egyptian Chief of Staff.[55]

"President Sadat prepared a diplomatic channel for his deception plan and in February 1973, dispatched Hafez Ismail, his national security advisor, on a tour of foreign capitals including Moscow, Bonn, London, and Washington."[56] Ismail continued

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[50] Palit, *Return to Sinai*, 48.
[51] Daniel and Herbig, *Strategic Military Deception*, 328.
[52] O'Ballance, *No Victor, No Vanquished*, 43.
[53] Handel, *Perception, Deception and Surprise*, 36.
[54] Bar-Joseph, *The Watchman Fell Asleep*, 29.
[55] Blum, *The Eve of Destruction*, 86.
[56] O'Ballance, *No Victor, No Vanquished*, 25.

the "peace offensive" by visiting the United Nations showing the world that Sadat was pursuing a peaceful course of action in the Middle East.[57] Even the speeches of Sadat changed tone in support of the deception plan. Starting in June, he toned down the rhetoric in his speeches and replaced it with more appeasing overtures. Phrases seeking UN resolution to the problem replaced passages such as "what has been taken by force has to be regained by force."[58] Sadat's speeches had the desired effect. An Aman document from early August, described intelligence analysts' views that the speeches reflected Egyptian intention not to pursue a military course of action against Israel in the coming years. Aman believed Sadat was focusing primarily on domestic issues and not looking to instigate a conflict in the Sinai.[59]

The diplomatic ruse continued in late September 1973, when Egyptian Foreign Minister Zayat met with officials in Washington D.C. to reengage the US' role as Middle East mediator.[60] The Egyptians further exploited diplomatic means by involving the UN. Sadat passed a message to a foreign minister of a European country in strict confidence that he planned a visit to the UN headquarters in October 1973. Sadat knew that the foreign minister would instantly leak this information to the Israelis, thus reinforcing the perception that Sadat did not plan on going to war.[61]

Finally, even the act of expelling the Soviet military advisors became a sign for the Israelis and the Americans that Sadat had forgone any military option against Israel.[62] Sadat himself commented, "I began to prepare for the battle, although I knew that the entire world (including Egypt) had interpreted my expulsion of the Soviet military experts as an indication that I wasn't going to fight."[63] The diplomatic wrangling served to complicate Israel's assessment of Sadat's true intentions.

Feedback

Action and reaction was the most prevalent form of feedback used by Sadat. The American and Israeli reaction to the expulsion of the Soviet experts confirmed their

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[57] O'Ballance, *No Victor, No Vanquished*, 25.
[58] Bar-Joseph, *The Watchman Fell Asleep*, 29.
[59] Bar-Joseph, *The Watchman Fell Asleep*, 75.
[60] Handel, *Perception, Deception and Surprise*, 59.
[61] Sadat, *In Search of Identity*, 244.
[62] Finklestone, *Anwar Sadat*, 86.
[63] Sadat, *In Search of Identity*, 232.

widely held beliefs that Sadat never intended to start another war with Israel.[64] In fact, Washington believed that Sadat without the Soviets had no military options.[65] This reaction formed the basis of what Sadat believed was the Israeli perception of Egypt and his military. Sadat commented in his memoirs "the Soviet Union, the West, and Israel misinterpreted my decision to expel the military experts and reached an erroneous conclusion which in fact served my strategy, as I had expected – that it was an indication that I had finally decided not to fight my own battle."[66]

Israeli response to Egyptian buildup in May and August showed Sadat that indeed the Israelis had seen the signs of war and reacted accordingly by mobilizing their populace and economy. After the war Moshe Dayan, Israeli Minister of Defense, when asked why he had not mobilized in October replied that Sadat "made me do it twice, at a cost of ten million dollars each time. So when it was the third time round I thought he wasn't serious, but he tricked me!"[67]

Ashraf Marwan if indeed he was a double agent would have provided Egypt with valuable insight into Mossad and high-level political thoughts and reactions to the Egyptian deception campaign. Since this claim is unsustainable, this thesis does not consider Marwan in the feedback loop of the deception cycle.

Target's Perception

The Egyptian deception plan "was brilliantly executed and yet could easily have failed had the Israelis and the Americans not been totally blinded by preconceived notions."[68] Israel's perception about Egypt's motivation and skill along with its self-perception of superiority led to several key assumptions that affected how well the Israeli leadership received Egyptian deception signals. The genesis of the assumptions arose from the belief that Israel would receive unambiguous warning of an impending attack and that Egypt would not attempt an offensive option until it met two crucial requirements.

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[64] Finklestone, *Anwar Sadat*, 81-82.
[65] Rabinovich, *The Yom Kippur War*, 14.
[66] Sadat, *In Search of Identity*, 230.
[67] Sadat, *In Search of Identity*, 242.
[68] Finklestone, *Anwar Sadat*, 84.

The basic supposition of the 1972 Annual Intelligence Evaluation by the head of the Israeli Intelligence branch (Aman) was that it would take six days of preparation for any large-scale military action by the Egyptians.[69] The Aman also believed it could provide at least 36 hours of advance warning before any such attack. Foreshadowing, the report warned of large-scale exercises, which could mask the early warning signs. Major General Zeira, the head of Aman in 1973, restated his confidence of spoiling any surprise attack because "the preparations cannot be hidden."[70]

The Aman's analysis rested on two main assumptions concerning Egyptian preparations for military aggression against Israel. First, the Egyptians needed to neutralize the Israeli's Air Force advantage. Previous conflicts had shown how deadly uncontested air could be in the desert combat environment. The Israelis assessed that the Egyptians required Sukhoi long-range bombers and Scud missiles to attack the airfields in Israel.[71] The second assumption was that Egypt or Syria would not act unilaterally against Israel. Based on these two assumptions, the Aman briefed the Israeli leadership that war was unlikely before 1975.[72]

The Israelis made the mistake of mirror imaging their own military doctrine with that of the Egyptians. Israeli doctrine centered on air superiority. Without superiority or at least parity, the Egyptians could not expect to win and therefore would forego any military action until they remedied this tactical deficiency. Similarly, the Israelis believed the offensive power of the tank dominated the ground battlefield and until the Egyptian army transformed from an infantry dominated force into a mechanized army there was little chance of war.[73]

The perception of Arab inadequacy blinded the Israelis to information counter to their beliefs. "So blind-or arrogant-were most Israeli generals, including those responsible for intelligence services, that major leaks by the Egyptians were not properly evaluated or were totally ignored" showing that any information that did not conform to

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[69] Johnson and Wirtz, *Strategic Intelligence*, 153.
[70] Johnson and Wirtz, *Strategic Intelligence*, 153.
[71] Johnson and Wirtz, *Strategic Intelligence*, 154.
[72] These two assumptions formed the basis for the paradigm that shaped Aman's perception of Egyptian intentions throughout the period of the deception. Post war inquiries into Israel's surprise dubbed this "the concept." Johnson and Wirtz, *Strategic Intelligence*, 153-56.
[73] Handel, *Perception, Deception and Surprise*, 48-51.

their preconceived notions were dismissed.[74] The CIA doubted the exercise cover stories for Egyptian movements because for the first time the Egyptians used full divisions combined with an unusual amount of intercepted signal traffic over the Canal Zone communications system. Coupled with atypical activity occurring similarly in Syria, the CIA indicated to the Israelis that preparations for offensive military actions are likely occurring. The Israelis refused to remove the blinders of their perceptions and discounted the warnings.[75]

In the end, the Israelis deceived themselves. They refused to accept signals and information contrary to their perception, military doctrine, and the "concept." The Concept was the Israeli "faith in their own deterrence power and military capabilities, their willingness to believe that the Arabs would not take so great a risk, and their wishful thinking."[76] In the end, Sadat won the first 24-hours with a stunning set back for the Israelis on both fronts. However, the gains would only be temporary.

Sadat and Hitler both used deception as the means to achieve strategic surprise. Using the components of the deception process model, this study examined how each campaign developed from formulation of the objective and plan, then was executed using transmission channels and finally how the deceiver used feedback channels to adjust the campaign to shape the target's perception to the desired alternate reality. With the knowledge of how each campaign operated using technologies of the period, the next chapter illuminates the changes of the Information Age and its effects on the deception cycle.

[74] Finklestone, *Anwar Sadat*, 85.
[75] Palit, *Return to Sinai*, 48.
[76] Handel, *Perception, Deception and Surprise*, 60.

Chapter 4

Digital Deception

Digital information technologies and advanced information resources dramatically affects the modern use of strategic deception. To illustrate this point, this chapter examines the vast improvements in quality and quantity of information now available. This in turn directly affects the deceiver's understanding of the target's perception, which serves as the foundation for the design of the deception plan. It also evaluates the deception cycle model by focusing on the components most affected by the Information Age, transmission and feedback channels. The chapter then projects the case studies into this modern era to highlight the effects the Information Age may have had on the two deception campaigns. The intent is not to be counterfactual but to illuminate the potential magnitude of change imparted on deception operations as a result of modern communication advancements. Finally, this chapter summarizes the implications of the Information Age on the complete deception cycle.

Understanding the Target

Since the foundation of any successful deception campaign is the deceiver's knowledge and understanding of the target's perception of the environment, the development of this foundation has always presented a monumental challenge. However, the Information Age greatly simplifies this challenge. The sheer amount of information available today provides significantly more insight into the overall culture of a society as well as a pseudo-psychological profile of the individual or collective leadership that is the ultimate target of a strategic deception campaign. The Information Age not only presents abundant information from various channels produced within and outside the target state, but also creates the ability to review, search, and analyze archived information to determine trends and fundamental shifts that may occur in the target's attitudes and thinking. The success or failure of deceptions depends on the clarity of a deceiver's understanding of the targets' perceptions and biases. From this knowledge, the deceiver can build a deception operation that capitalizes on information the target is predisposed to

believe from channels deemed reliable. Although the following example involving a US study of the Japanese during the Second World War does not involve a deception operation per se, it nonetheless underscores the potential impact of Information Age capabilities on deception.

Study of enemy culture, through its literature, newspaper clippings, films and recordings, and other open source means was necessary in the Second World War and anthropologists aided the United States and its allies in this effort. In particular, Ruth Benedict attempted to understand the cultural patterns that drove Japanese aggression, and hoped to find possible weaknesses or means of persuasion missed by others. Benedict is known not only for her earlier work *Patterns of Culture*, but also for her later book, *The Chrysanthemum and the Sword*, the study of the society and culture of Japan that she published in 1946, incorporating results of her wartime research. Unable, obviously, to visit Japan under Hirohito, Emperor of Japan, she was forced to gather and examine cultural materials available outside the country. Benedict's war work included a major study, largely completed in 1944, aimed at understanding Japanese culture; a culture that Americans found difficult to comprehend. Benedict, working for the Office of War Information, played a role in defining the importance of the Emperor in Japanese culture, and formulated the crucial recommendation to President Franklin D. Roosevelt that the Emperor's reign be permitted to continue after the Japanese surrender. [1]

The Information Age greatly enhances the ability of the deceiver to gain insight on a target's biases and predilections by opening many different facets of the society to inspection in the virtual realm. Benedict compiled her anthropological study of the Japanese completely from open sources and without ever visiting the country. Today, the interconnectivity of global networks and communications exponentially increase the numbers of sources available. A Google search for Japan yields 1,840,000,000 web sites in one tenth of a second.[2] The Japanese Information Network is only one of these sites that offer in-depth perspective on Japanese culture as well as the political, economic, and

[1] Ruth Benedict, *The Chrysanthemum and the Sword; Patterns of Japanese Culture* (Boston: Houghton Mifflin company, 1946), 309.
[2] Google search engine – date of search 2 Mar 06

societal aspects of the society.[3] From this one site, one has access to news, governmental positions, court decisions, and local broadcasting. The work Ruth Benedict painstakingly pieced together over years is now available in seconds.[4]

The study of culture, as illustrated, is important. In addition to aiding cultural understanding, the Information Age helps the deceiver develop a better understanding of the top officials in the military and government, the targets of strategic deception. The Office of Technology Assessment reported in 1985 that a number of federal agencies were using a variety of electronic surveillance technologies to monitor the behavior, movements, communications, and emotions of individuals. Some of the surveillance technologies listed in the report include; miniaturized transmitters, satellite based optical and infrared sensors, computer networks, pattern recognition software, voice stress analyzers, and voice recognition.[5] With this fidelity and depth of information, a deceiver can now collect and exploit a more accurate knowledge base and image of the target. Similar to the ways companies collect information on its consumers in order to target product development and advertising for specific demographics, deception planners can mine data on their intended target to develop a customized deception plan that accentuates the vulnerabilities discovered via Information Age technologies. The more accurate the knowledge of the target's perception, the better the deceiver can design a deception plan to use channels that the target believes to be reliable sources of accurate information.

Transmission Channels

Channels are the means through which both the deceiver's deception plan reaches the target and feedback reaches the deceiver. The Information Age has affected not only

[3]Japan Information Network, *Japan Information Network* (2006 [cited May 2 2006]); available from http://www.jinjapan.org/.

[4] There is an assumption made that these same sources would remain available during times of war. If the Japanese government would censor or restrict this information during periods of conflict is an interesting question. Overreliance on such sources might expose shortfalls if complimentary intelligence collection systems are not continually updated and modernized. Censorship may also become a factor. For example, the People's Republic of China exercises strict control over material its citizens can access. This type of control could heavily influence the type and accuracy of information available via open sources. Gruden Wacker, *China and the Internet: Politics of the Digital Leap Forward* (New York: Taylor and Francis Group, 2003), 61-63.

[5] Gerald Sussman, *Communication, Technology, and Politics in the Information Age* (Thousand Oaks, CA: Sage Publications, 1997), 49-50.

the number and types of channels, but also how the deceiver uses the channels in a deception operation. As discussed in chapter one, channels refer to transmission and feedback sources. Recall that transmission channels are comprised of both closed and open forms.

Closed Channels

The deceiver must now account for new Information Age technologies in developing a deception plan. The revolution in communication technologies and technical intelligence collection means offer the deceiver not only new types of channels, but also new types of information. The two main categories of closed channels, spies and the intelligence collection system, are the same but how the deceiver uses these conduits to pass false information to the target has radically changed.

Deception planners have employed spies and double agents throughout history and they are still viable today. Their use, however, has changed. The Information Age has had two primary effects on the use of Humint by influencing the way spies can communicate and the types of information they can pass. Agents have transformed into cyber-agents equipped with networked computers allowing the high-speed processing and mining of countless amounts of data that assist in evaluating feedback. A deceiver can use spies when the target may not have the capability to otherwise access the information. "In the Cold War, sergeants turned spies pillaged storehouses of paper secrets; now a Walker family could loot 'knowledge warehouses', or corrupt them; and this is already happened" as evidenced in the Hanssen case.[6] A spy can infiltrate a closed data bank and either alter information or insert new data that supports the overall aim of the deception.

The information passed by modern spies incorporates vast amounts and types of data available as a result of the Information Age. Encrypted global communications networks have replaced dead drops in the middle of the night by enabling the transmission of

[6] Robert Hanssen infiltrated FBI computer systems and sold the Soviets intelligence on US strategy, estimates and agents working in the Soviet Union. L. V. Scott and Peter Jackson, *Understanding Intelligence in the Twenty-First Century: Journeys in Shadows* (London; New York: Routledge, 2004), 65.

millions of bytes of information in a fraction of a second.[7] Spies can also interact closely with the other type of closed channel, the target's intelligence collection system, by serving as a cueing source. Spies as a cueing source for a target's collection system takes on greater importance as the disparity of capabilities between nations continues to grow. For countries with lesser capabilities, spies may be required to cue the limited collections to help ensure that the information the deceiver wants the target to receive is seen.

Technical intelligence channels have also benefited from the Information Age. The Cold War saw the birth of intelligence channels that could peer behind the Iron Curtain. The Soviets solved over flight and sovereignty concerns by launching the first satellite. The flight of Sputnik in October 1957 opened the heavens as a sanctuary to gather intelligence.[8] Today, multitudes of sensors now orbit the Earth gathering imagery (IMINT), signals (SIGINT), and multi-spectral (MASINT) data.

The important aspect is that the deceiver should analyze the target's intelligence system as a whole to determine which sensors to use to send false information to the target or which sensors the target can use to spoil the deception. Satellites represent only one element of new technologies. Wayne Hall describes another example, a new kind of reconnaissance and surveillance performed by cyberbots. These cyberbots perform these duties along "communication paths and in switches, routers and databases."[9] The scope of this thesis is not to explore the vast numbers and types of sensors available now or in the future but rather to note their existence presents both a challenge and an opportunity for deception operations in the Information Age.

Open Channels

Open channels in the Information Age have proliferated to an even greater degree than closed channels. One former CIA operative claimed that over ninety percent of information sought by spies is available openly.[10] Andrew Rathmell's essay on the modern practice of intelligence bolsters the claim by assigning a new importance on open

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[7] Keith Melton, H., *Spies in the Digital Age* (1999 [cited 3 March 2006]); available from http://www.cnn.com/SPECIALS/cold.war/experience/spies/melton.essay/.
[8] William E. Burrows, *This New Ocean: The Story of the Space Age*, 1st ed. (New York: Random House, 1998), 183-99.
[9] Wayne M. Hall, *Stray Voltage: War in the Information Age* (Annapolis, Md.: Naval Institute Pess, 2003), 130.
[10] Melton, *Spies in the Digital Age*.

source information.[11] The Information Age increases number of open channels, opens new ones, and increases the reach of existing ones. These open sources include mass media, government produced or sponsored propaganda, and diplomatic channels.

Mass media remains a powerful tool in a deception operation. Mass media has the ability to reach large, dispersed audiences in little time. The Information Age has amplified this reach and these effects with advances in broadcasting of television and radio signals via satellite and the Internet.

The Internet has vastly increased the breadth of reach and enabled a wider span of access to mass media information. In comparison, television was only a small step in the shrinking of time and distance that gives both diplomats and the public vivid accounts of almost real time news from anywhere in the world. Satellite broadcasting expands this reach even further while adding variety to the types of messages, even those used for deceptive purposes. Satellite and Internet broadcasting offers a channel right into the offices of the enemy's high-level decision makers. Localized print media, limited range radio, and television stations have given way to numerous channels that can originate from almost anywhere with the capability of reaching into homes around the world. A trend towards the internationalization of media systems through global communication networks, satellite links, fiber optic cable systems and Internet communication networks, coupled with deregulation, has reduced the control of nation states and formal media institutions over the information they provide.[12] However, the ability to control information, not the media itself is vital to effective deception operations.

The art of deception stems from the way a deceiver manipulates the agents of mass media to portray incidents in a manner that supports the overall deception plan. Sadat in the Badr case study proved masterful at propagating information in the local and national media that reinforced the messages he wanted the Israeli leadership to see. The fact that he had a firm grasp on the media facilitated this relationship. The success of modern deception relies on the deceiver's ability to continue to control the message when actual control over the media has declined.

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[11] Andrew Rathmell, "Towards Postmodern Intelligence," *Intelligence and National Security* 17, no. 3 (2002): 87-104.
[12] Gorman and McLean, *Media and Society in the Twentieth Century*, 211.

The lack of control caused by the Information Age is evident in mass media by the individual's ability to transmit his/her message in the mass media arena. This situation is in direct contrast to the type of control exercised in earlier times. Blogs, chat rooms, and other Internet phenomena represent a form of communication that is growing in popularity. Furthermore, these new avenues for mass media cannot be as tightly controlled by governments. These communication channels not only resist control but they introduce a new dynamic of dialogue versus a one-way transmission of ideas. In tightly controlled societies such as North Korea, Iran, and China, these new open channels may allow for communication and information flow that would have not existed otherwise.[13] These avenues facilitate the circulation of "ideas and ways of seeing that are not well covered in much of the detail in mainstream media."[14] A carefully thought out and coherently exercised deception plan can leverage these new technologies as channels of information to some of the world's more closed societies.

Propaganda channels also have changed with the advent of the Information Age in refutability, reach, and number of channels. Previously, an actor either broadcast or published propaganda for mass consumption at the home front or targeted it towards the enemy. Government controlled sources, however, were often easily identified either by the message or the source itself. Once detected, the target state could easily refute the information. The Information Age, by profoundly increasing the avenues through which information can travel, has made propaganda channels relatively invisible and thus harder to detect and refute.[15]

For example radio, as a propaganda vehicle, has become less identifiable as a government sponsored source. Stations such as Radio Free Europe and Radio Liberation originated as part of America's attempt in the 1950's to use US cultural and economic influence to undermine the Soviet grasp in Eastern Europe and in its own country. The CIA covertly funded and operated both stations. The US could have used the stations as transmission channels in deception operations except for the fact that the target could

[13] Sussman, *Communication, Technology, and Politics in the Information Age*, 174.
[14] Sussman, *Communication, Technology, and Politics in the Information Age*, 174.
[15] Godson and Wirtz, *Strategic Denial and Deception*, 23.

easily identify the messages as American propaganda.[16] Another propaganda program, Voice of America, has expanded its operations in the Information Age to include Internet and satellite broadcasting in over 44 different languages for an audience reported at over 100 million people. In this case, globalization has lessened its direct ties to officially sponsored messages.[17]

Don Heath, president of the Internet Society, commented on the propaganda value of the Internet: "if the United States had tried to come up with a scheme to spread its brand of capitalism and its emphasis on political liberalism around the world, it couldn't have invented a better model than the Internet."[18] The Internet is accessible virtually anywhere in the world as with a power source, a computer, and a form of connectivity. Previously, Radio Free Europe and other radio programs had limited range based on the power of the transmission source. However, the Internet allows their broadcast to anywhere given the aforementioned requirements. Broadcasts today are truly global.

The Internet opens new avenues of transmitting propaganda to areas not easily accessible. Specialized web sites or targeted email lists facilitate the forming of virtual communities with similar interests and ideals, which in turn are more susceptible to propaganda messages, because of known and similar perceptions that a deceiver can attempt to manipulate. If information from these avenues shapes a target's perception, a deceiver can use these channels in the deception campaign. In this way, the deceiver can pass anonymous information assuming it conforms to the norms and perceptions of the virtual community.[19]

The diplomatic channel has also been affected by the Information Age. The broad expanse of information has raised a new set of strategic issues and has changed the nature

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[16] Wilson P. Dizard, *Digital Diplomacy: U.S. Foreign Policy in the Information Age* (Westport, Conn.: Praeger, 2001), 27-28.

[17] Broadcasting Board of Governors, *Voice of America* (2006 [cited May 10 2006]); available from http://www.voanews.com/english/portal.cfm.

[18] "Welcome to the Internet: The first global colony," *New York Times*, 9 January 2000, p. WK-1.

[19] Gregory Treverton makes the opposite assertion that the information age has all but eliminated propaganda as a transmission channel for governments. He claims that a government's power to control information today is diminishing. The Orwellian view of the world as portrayed *1984* is even less likely today. The sheer number of information sources makes it nearly impossible for governments to control the media outlet for its own purposes including passing information in support of a deception campaign. Gregory F. Treverton, *Reshaping National Intelligence for an Age of Information*, *Rand Studies in Policy Analysis* (Cambridge: Cambridge University Press, 2003), 30.

of foreign policy. Wilson Dizard refers to this distinctly new type of interaction between nation-states as digital diplomacy.[20] He attributes the fundamental cause of change to the resources that are now available to diplomats including computers, satellites, and the Internet.[21]

The new technologies and capabilities not only affect the diplomatic process but also enhance this channel's use within the deception process. People have not changed, but their access to information and their use of it has caused a transformation. In addition to the quantity and quality of information, the ability to move it also has greatly increased. Electronic messaging distributed by high-speed communications networks has replaced the diplomatic cable traffic of yesteryear.[22]

Digital diplomacy goes beyond the interactions of ambassadors at embassies; it opens various new avenues in which leaders and decision makers pass strategic information. The new direct communication methods such as video tele-conferencing, email, chat rooms etc. provide diplomats new methods of interaction beyond face-to-face meetings or telephonic communication. The impact of these new channels on deception is difficult to assess absent specific context. A skilled and ingenious diplomat might better portray the deceiver's intent in a personal exchange with a diplomat representing the target. Other diplomats might better pass information via purely electronic means preventing unintentional body language or gestures from undermining the intended deception.

The Information Age allows the diplomatic channel to operate in accord with other closed channels and possibly become a conduit of digital information the target's collection system may not be capable of receiving. Much like the spies in closed channels, diplomats offer a different method of inputting information into the target's collection cycle and ultimately affecting the target's perception. A significant difference involves the diplomat's ability to pass information to higher levels making them even more important for strategic deception.

Finally, while the Information Age affects the open channels individually, it also creates synergies between them. An example is the US Information Agency. This one

[20] Dizard, *Digital Diplomacy*, 1.
[21] Dizard, *Digital Diplomacy*, 5.
[22] Dizard, *Digital Diplomacy*, 5.

channel operates simultaneously as diplomatic and propaganda mass media source of information. Until 1999, there were two US agencies responsible for public diplomacy issues, the State Department, and the US Information Agency (USIA). USIA became the USINFO run by the Bureau of International Information Programs within the State Department. This new department is responsible for a "variety of information initiatives and strategic communications programs, including Internet and print publications, traveling and electronically transmitted speaker programs, and information resource services. These reach—and are created strictly for—key international audiences, such as the media, government officials, opinion leaders, and the general public in more than 140 countries around the world."[23]

Feedback

Not surprisingly, the Information Age effects on the deception cycle's feedback mechanisms look remarkably similar to those on transmission channels. The only exception is that instead of developing messages intended for the target's consumption, feedback focuses on the deceiver's intelligence and collection system. This system must be in tune with receiving or observing any phenomena that indicate the target's acceptance or rejection of the deceiver's transmitted information.

For many, the British use of ULTRA represents the pinnacle of feedback in deception operations.[24] Deception planners today, however, should not use this as a benchmark due to the unlikely nature of being able to repeat the British system. The British were in an enviable position of having a number of double agents that were used as transmission channels but more importantly could with the aid of the enigma machine and the talents of those working at Bletchley Park almost instantly identify if the German

[23] Bureau of International Information Programs US Department of State, "Usinfo," (2006).
[24] ULTRA refers to information gathered by British Intelligence with the use of captured German cryptography equipment known as an enigma machine. This provided an irreplaceable running guage on how German intelligence was reacting to the deception-generated signals, Allied developments of which they were or were not aware, their worries, intentions, and beliefs. With Ultra, the Allies could overhear the Abwehr talking to itself. Ronald Lewin, *Ultra Goes to War: The First Account of World War II's Greatest Secret Based on Official Documents* (New York: McGraw-Hill, 1978). Maurice Freedman, *Unravelling Enigma: Winning the Code War at Station X* (Barnsley, South Yorkshire, Great Britain: Leo Cooper, 2000). Simon Singh, *The Code Book: The Evolution of Secrecy from Mary, Queen of Scots, to Quantum Cryptography*, 1st ed. (New York: Doubleday, 1999).

High Command accepted and acted upon the information.[25] This unique intelligence experience enabled the Allies to create an almost surefire deception operation.

The Information Age permits the deceiver to operate a virtual enigma machine. The vast amounts of data generated by the target gives the deceiver the virtual codes necessary to decipher the target's actions leading to a fuller understanding of the target's perception for the deceiver. The codes of the Information Age rely on directed searches more than collection. A skillful search of a target's open sources with a focused use of the deceiver's collection system can produce valuable indications of the progress of the deception plan. For this effort to function properly, the deceiver should anticipate the need to gather information for the purpose of feedback during the original deception planning phase.

Projected Case Studies

After studying the effects of the Information Age on the individual components of the deception cycle, recasting the case studies in light of some of these changes is useful. This does not result in a counterfactual retelling of history, but serves to illustrate the effects of the changes on actual deception campaigns.

Understanding the Target's Perception

Stalin's Russia presented a formidable façade that proved hard for the Germans to penetrate via channels of the period. His paranoid nature, readiness to conduct purges combined with an iron grasp on almost all aspects of society left the Germans few options to learn about their future adversary's perception of the world. Recall from the case study that the Germans primarily built the needed knowledge from open sources available to Ribbentrop, the German foreign minister in Russia.

The Information Age would have afforded Ribbentrop extensive material for developing a more complete understanding of Stalin's perception of the environment, including archives of data on public speeches to various audiences along with news stories and articles on almost every aspect of Stalin's life. Internet search engines could retrieve archived speeches, official correspondence, and written press releases. As a

[25] Instantly is a relative term used in this example. Realize that as long as the British had a deciphered code, messages could be quickly translated, assuming there was no backlog or a prioritized system was in place. However, if the Germans changed codes it could take weeks before the agents at Bletchley Park could break the new code. Singh, *The Code Book*, 143-89.

reference point, a Google search for Stalin today yields 24,400,000 hits. While this may seem unfair since he is a significant historical figure, compare it to a modern example. Mahmoud Ahmadinejad, the Iranian President elected in 2005, is of comparable status today. A search of his name included 13,000,000 results with a number of them offering in-depth profiles and interviews.[26]

Other Internet resources such as chat rooms and blogs may have provided Nazi decision makers with a slightly different perspective of the inner workings of the Kremlin. With this insight, Ribbentrop may have easily uncovered Stalin's struggle to build alliances. The initial courtship of Britain and France cooled with their decision to defend Poland allowing Stalin to sit on the sidelines while three peer competitors weakened themselves in war. With this insight of "cautious enemies – uneasy allies" mentality, Hitler and the deception planners would understand how much and what types of disinformation Stalin might be inclined to believe.[27]

Sadat had a slight advantage over Hitler in his initial understanding of the target's perception with almost two decades of sporadic fighting and continual political rhetoric between the deceiver and target state. However, the Information Age could have illuminated a more nuanced and deeper knowledge that may have benefited the deception campaign. Much like Ribbentrop thirty-two years before, the Egyptians in the Information Age could comb through countless data banks of open source information to gain insight on the Israeli perception of the Sinai situation. Perhaps it would have become evident that the Israelis were arrogantly confident in their ability acting in concert with the "concept" notion. Recall that the concept was the Israeli notion that the Egyptians would not act until they achieved military capabilities, namely long-range bombers and advanced SSMs from the Soviet Union. With this type of knowledge, the Egyptians could have orchestrated a more tailored and precise deception campaign to reinforce this preconceived notion.

Transmission Channels

Information Age transmission channels may have increased the opportunities and effectiveness of the Barbarossa deception. The first period of the deception outlined in

[26] Google search engine – date searched 30 May 2006.
[27] Whaley, *Codeword Barbarossa*, 12-13.

Document 12 used two primary cover stories, preparation for the invasion of England and exaggerating the significance of Operation Marita. Let us take the British theme and extrapolate the effects of modern transmission channels and their potential effect on the deception.

The Germans managed to mobilize three and a half million troops on the Soviet border under the guise of preparations for battle on the other side of Europe.[28] Planners used a variety of cover stories to pass this deception off. For example, German troops training for Operation Sea Lion were operating in the eastern regions to stay out of range of British bombers and reconnaissance aircraft.[29] Information Age transmission channels may have portrayed this cover story more effectively to the Soviets. The Abwehr and Goebbels propaganda could have bombarded Soviet sources with telltale signs of units training for a fictitious amphibious assault on Britain. The Germans could circulate on the Internet and globally broadcast footage and reports showing the practice assaults.

This capability may not seem significant until one considers the delta between 1941 and today. News played only a small role in daily radio broadcasts until the outbreak of the Second World War. The war provided a new impetus raising the status of mass media news. Edward Murrow became a household name by broadcasting live riveting accounts home from Western Europe.[30] Yet, the news remained slow and localized. Compare that to today's instant media atmosphere. The twenty-four hour a day, live broadcasts from virtually anywhere in the world have dramatically shrunk the globe. Multiple news sources such as CNN, BBC, and al Jazeera for example are all capable of spreading a news stories quickly to almost all parts of the world. The same quantum increase in global reach has also affected the timeliness of reporting. Delays in reporting have shriveled from days to only seconds.[31]

The Wehrmacht could also have inundated Soviet closed channels with signals collaborating preparations for an amphibious assault. Military units could publicize and stage mock beach landings for Soviet space and airborne collection platforms to observe.

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[28] Glantz, *Barbarossa*, 35.
[29] Whaley, *Codeword Barbarossa*, 173.
[30] Ray Eldon Hiebert, Shelia J. Gibbons, and Shelia Silver, *Exploring Mass Media for a Changing World* (Mahwah, New Jersey: Lawrence Erlbaum Associates, 2000), 213.
[31] Irwin Lebow, *Information Highways and Byways: From the Telegraph to the 21st Century* (New York: IEEE Press, 1995), 136-39.

Tactical deception measures such as decoys would compliment the strategic message by providing physical evidence to support the transmitted signals. German spies could facilitate pointing Soviet collection assets to areas that highlight the German ruse. Altered emails or infiltrated databases could electronically cue the Russians to identify the signals the Germans wanted them to see while hiding the true information in the vast of available information.

Understanding the target's collection system becomes even more important today with the multiple sensors available in the Information Age. Soviet collection systems using a modern model would have multiple sensors that the German deception plan could have used as disinformation channels. Obviously, there was no satellite capability in 1941. Today the German ruse would have to account for such capabilities as imagery, both radar and electro-optical, MASINT technologies, and hyperspectural technologies, and various ELINT technologies capable of intercepting radio and radar emitters. While these capabilities add channels for a deceiver to transmit deception operations signals, they do increase the overall complexity of designing and executing deception operations, a topic discussed later in detail. Information Age advances in channels may have equally served the multiple themes of the Badr deception. For Badr, the weak military message serves as a valid example. Recall that the Badr planners intended the Israelis to perceive the Egyptian military to be in a weakened state after the last conflict in 1967 and the expulsion of Soviet advisors. Leveraging Israeli preconceptions, the Egyptians may have easily convinced the Israelis with supporting disinformation that their assumption was correct. Egypt's political leaders could have used diplomatic channels to show discussions and negotiations regarding the needed acquisition of the bombers and SSMs. Sadat could have pleaded for the upgraded arms in an international forum along with trying to garner international support for political and military concessions on the Sinai. Global television coverage of Sadat "begging" for military hardware would reinforce Western and Israeli perceptions. Sadat also could have leaked emails and other electronic communications between Egyptian and Soviet leaders to the media. By broadcasting these leaks, television and the Internet media may have opened a public forum discussing the current state of the Egyptian military. Propaganda agencies could crank out web

pages, documentaries, and interviews that gave the impression that the military was not prepared to fight another war.

Sadat had a small advantage over Hitler with the introduction of television and electronic journalism.[32] However, television broadcasting was still in its infancy as compared to the prolific advancements of today. Sadat on television in 1973 garnered little international attention as compared to appearing on the major news channels of today. Global exposure through multiple sources is what the Information Age brings to deception campaigns. The real quest is not how to get the signal in the air, but a more perplexing problem of how to get the target to "hear" the signal amongst all the competing noise. This situation challenges the deceiver to develop a deeper understanding of the target; not only the target's perception but also how the target forms that perception. Understanding the means and methods that the target uses to gather, sort, and validate signals delivers huge rewards in designing a deception campaign that can leverage this knowledge. Sadat, with modern day technologies, could transmit signals in channels from which the Israelis gathered "credible" information.

Closed channels could further buttress the weak military image portrayed by the Egyptians to shape Israeli perception. The military could stage large-scale exercises. A channel crossing exercise could exaggerate the pace and incompetence of Egyptian troops in this type of maneuver. If Marwan was a true double agent, he would be in a perfect position to not only cue the Israeli collection system to the fake exercise, but also to provide fake electronic documents of the after action reports explaining the "miserable failure."

Further capitalizing on Information Age intelligence collection systems, the Egyptians could exploit the weak military theme. Knowing that the Israelis were electronically eavesdropping, Egyptian SAM operators could have coordinated to minimize emissions thus giving the impression of fewer operational SAMs. The "lazy unit" motif could have been expanded to include the entire military versus only the unit visible to Israeli observers on the Bar-Lev line. By combining diplomatic overtures in

[32] Albert Abramson, *The History of Television, 1942-2000* (Jefferson, North Carolina: McFarland &Company, 2001), 155.

the mass media with propaganda and fake exercises, the Israelis may have assessed the Egyptians were completely incapable of any offensive military action.

Feedback

Feedback may seem slighted in the case studies. Does this imply that feedback is a luxury and not a necessity in the deception cycle? Hitler and Sadat relied on very little feedback for their deception operations. Both leaders appeared arrogant and confident in their ability to surprise their targets completely. This is not to say that the Germans and the Egyptians failed to use feedback, but perhaps that both had few options for gaining feedback. The Information Age could have afforded both deceivers insight into how the targets received the deceptive information and if they were being deceived successfully. Let's apply the intelligence collection system comparable to the US' today. Granted this is one of the more intricate systems in the world but it serves to highlight the capabilities that exist in the Information Age.

Using this model, the Abwehr could have adjusted its collection system to gather surveillance and reconnaissance on Soviet troop dispositions and preparations. The Barbarossa deception at its simplest level involved convincing Stalin that despite what he saw, he was not the intended target of an invasion. Indications from COMMINT, SIGINT, or MASINT sources could give the Abwehr an early indication of the Soviet acceptance of the message based on the status and location of their forces. The Egyptians could also monitor Soviet communications to listen for heightened activity. Knowing Soviet awareness of the German troop buildup on the eastern front would also serve as good indicator for the transition from the first to the second phase of the deception plan outlined in Document 12.

Feedback permits refinement of the deception process. Hitler could further reinforce messages that Stalin believed and alter channels and information that Stalin either did not believe or receive. For Hitler, besides Ribbentrop, his own correspondence with Stalin afforded him an opportunity for feedback. The Information Age could have greatly facilitated these exchanges. Instead of hand-carried letters, Hitler could have sent official documents or emails electronically in a matter of seconds. Hitler could have further exploited this personal link to the target and used it to send multimedia presentations supporting the deception themes. He would have instantly known Stalin had received it

and by his response, Hitler could gauge Stalin's acceptance of the information. The result of better feedback could have been an even greater amount of strategic surprise.

The Information Age would have likewise benefited feedback in the Badr deception effort as in the example of the "cry wolf" type of message. The intent was to have the Israeli military react repeatedly and mobilize from a peacetime structure both economically and militarily to several Egyptian ploys. Information Age technology could have given the Egyptians almost the exact responses of the Israelis. Satellite sensors could monitor the exact call-up procedures from communication methods to reporting and alert positions. Satellite imagery could pin point troop locations and even track supply shipments to the Bar-Lev line. Open sources such as local news stations and Internet news reporting would report on the rapid call-up of reserves. The closed channel information along with open source on the mobilization would give Sadat excellent feedback that the Israelis had indeed taken the bait.

Implications

Looking only at the individual components of the deception cycle through the Information Age lens illuminates an incomplete picture of the effects of the boom in information. A more holistic view exposes other implications concerning strategic deception in the modern era. Addressing the concepts of coherency of the plan and time of the deception cycle reveals other consequences of the new and abundant sources of information.

Coherency

Coherency is the measure of all the elements of a deception plan working in a harmonious manner. Incorporation of a deception campaign into operational planning must occur from the onset. Separation of these planning activities places strains on the overall coherency of the design. Each signal sent by the deceiver must be compatible not only with the overall deception plan, but also with signals sent by the deceiver through other channels and other channels not controlled or influenced by the deceiver. The case studies offer a good example and a poor example of coherency.

The coherency of the Barbarossa campaign began with an articulated plan in Document 12. The complimentary nature of the Barbarossa campaign with the realized change in Soviet perception required two phases of the plan. As the Soviets recognized

the buildup of forces in the East, the German deception operation adjusted the signals, no longer denying their existence, but merely hiding the true intent. All channels including closed, diplomatic, propaganda and mass media worked in unison to present a consistent message to Stalin. This forethought in planning more than made up for the lack of feedback gained in the elaborate ruse.

The Badr deception suffered from coherency issues even though it ultimately still achieved the element of surprise for the Egyptians. The three images that Sadat tried to portray to the Israelis were not completely compatible. The "cry wolf" actions of the deception operation worked in opposition to the "political-not-military" image of the overall deception plan. "Cry wolf" required substantial Egyptian military mobilization and activity in order to condition the desired Israeli military response. At the same time, Sadat portrayed Egypt as wanting a "political solution" to the Sinai issue which seemingly would require little if any military action for believability. An unintended consequence may be that these disparate signals did add an air of ambiguity to Egyptian intentions.

Designing a coherent campaign in the Information Age is more difficult than in the past. The ever-increasing number of channels opens up vast amounts of information available to the intended target in minimal amounts of time. The information has to mesh reality and the target's perception to the desired action. Coherency does not happen by accident, and the meticulous nature of the German machine based on their level of planning could have dealt fairly well with official deception information. The problem, however, may have arisen in the Information Age due to the loss of control of non-state sponsored media and the globalization of information. Cell phone conversations or intercepted emails originating on the Soviet border could have contradicted the fake letters post-marked from the west. Contradictory information that loosens coherency becomes more obvious when compared to larger sample sizes of information gathered from a multitude of sources. The lack of coherency in the Egyptian three-pronged deception plan could have become more glaring with today's information flows. The Israeli confidence may have weakened with disparate information from different sources causing them to question Sadat's rhetoric and leading to the detection of the gradual troop and supply buildup across the canal.

Timeliness

The Information Age has the potential to reduce the deception cycle timeline significantly. Time is relative and it relates to deception in how quickly the deceiver maneuvers through the deception cycle. John Boyd's OODA loop is another way to view the deception cycle.[33] Much as time is important in Boyd's loop, time is equally important within the deception cycle. The following figure overlays Boyd's OODA loop over the deception cycle and identifies the close relationship between the two.

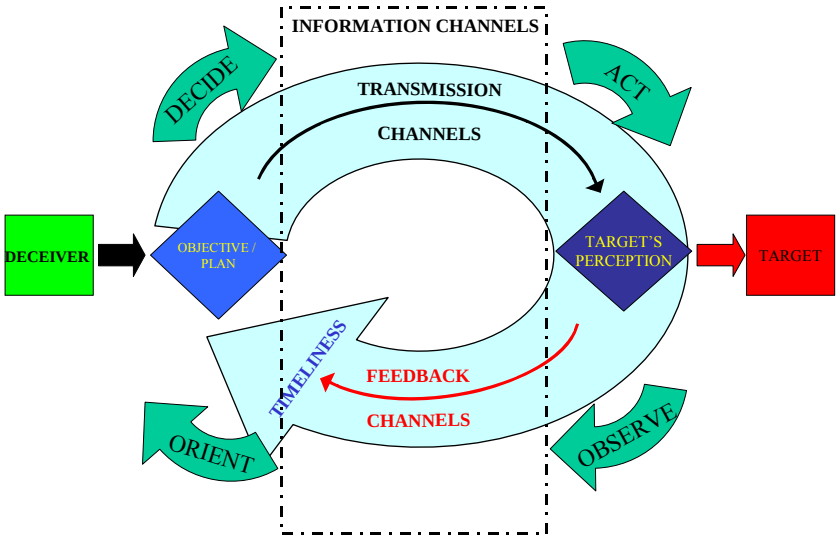

Figure 2 Deception Cycle Aligned with OODA Loop

Source: Author's original work

The following example describes the amount of time required for information passage in the Second World War. The timeline presented by H.F. Hinsley illustrated the snail's pace of critical information transfer as it passed through multiple channels. The account traces information passed to the American Commercial Attaché in Berlin by a senior member of the Nazi party. A US spy attained detailed information of the 18 December directive along with other information from the Führer's Conference on the subject. US political leaders received the information on 21 February and passed it to the Soviet Ambassador on 1 March 1941.[34]

[33] John R. Boyd, *A Discourse on Winning and Losing* (N.P., 1987).
[34] Erickson and Dilks, *Barbarossa*, 51.

Today, information transfer is literally at the speed of light. Information that took months by courier now is available at one's fingertips. To further illustrate the Information Age effects, let's quickly examine satellite technology's role in information transfer. The Corona program was the first generation of imagery reconnaissance satellites. This class of satellites ejected film canisters with parachutes that drifted slowly back to earth. The method involved an extensive timeline from image capture to data exploitation. The Discoverer 14 flight on 18 August1960 was the first successful attempt to image the USSR from space. The entire process was, however, lengthy by today's standards. A US Air Force C-119 captured the floating cargo and returned to Hickam Air Force Base in Hawaii. After processing the film, officials rushed it to Washington, D.C. for exploitation.[35] The entire process took almost 24 hours before reaching D.C. and another five days before the President viewed the results. In contrast, Telstar was the first active-repeater satellite that relayed voice, data, and video between two points at the speed of light. The first transmission in 1962 from Telstar represented the primitive beginnings of global communications. The satellite was only capable of handling 60 phone calls or one video feed whereas today's satellites are capable of carrying over 100,000 calls and dozens of video transmissions simultaneously.[36] Today digitized images with improved communication channels can make the trip from satellite system – ground station- Washington – to fielded forces in a manner of minutes.[37]

All three examples show a compression of time as information technology has improved. Today the Information Age brings volumes of information from multiple sources to the fingertips of decision-makers in seconds. The effect is a compression of the entire deception cycle. Transmission channels no longer require months to move courier letters and satellite imagery can be available within an hour of collection. Streaming information may force targets of deception to make rash decisions before they can measure the weight and consequences of the decision.

This compression of time also affects the deceiver. Feedback channels working at the same speed give the deception planners little if any time to adjust to the actions of the target. The deceiver may not bolster the plan with follow on inputs and weaknesses may

[35] Burrows, *This New Ocean: The Story of the Space Age*, 232-34.
[36] Dizard, *Digital Diplomacy*, 37.
[37] Treverton, *Reshaping National Intelligence for an Age of Information*, 68.

go uncorrected in a faster moving deception game. The deceiver should control the flow of disinformation based on its assumption of how fast a target can digest the information and its own ability to receive and assimilate feedback that may cause alterations to the deception plan.

Overload and Assimilation

Introducing more information in a shorter time cycle becomes a problem in itself. Strategic advantage will become a matter of whose intelligence and feedback collection, exploitation, and dissemination timelines are the shortest, but this also raises complications. The amount of information collected in the Information Age can potentially overwhelm current techniques and procedures for exploitation and dissemination. Analysts must produce "thoroughly analyzed, contextually based products while meeting demanding timeliness requirements of less than 24 hours (in some cases, 12 hours)."[38] The Information Age, while potentially creating a problem, does offer a solution. Softcopy search tools accessing integrated and networked databases create automated analysts that dramatically reduce the time required to sift through large amounts of data. The advancement of Auto Target Recognition (ATR) and Assisted Target Recognition (ASTR) systems further leverage the advancements of the Information Age.[39]

A clarifying example is the vast amount of electronic intercepts gathered by *Sonderdienst Seehaus*, the German radio-news monitoring service. This organization was responsible for collecting and disseminating radio intercepts in the form of reports. These reports, titled "Radio Intercept Reports: Transmissions of Foreign Radio Broadcasters," were gathered and printed in volumes that routinely surpassed a thousand pages a day.[40] Today, automated methods can collect, sort and analyze electronic intercepts. In fact, Admiral Arthur Cebrowski, director of the Office of Force Transformation from 2001-2005, in figure 3, illustrates the impact of Moore's law

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[38] United States. Congress. House. Permanent Select Committee on Intelligence.,, *Intelligence Community in the 21st Century: Staff Study* (Washington, D.C. G.P.O., 1996), 133.
[39] United States. Congress. House. Permanent Select Committee on Intelligence., *Intelligence Community in the 21st Century: Staff Study*, 134-35.
[40] Kahn, *Hitler's Spies*, 165.

applied to data in the Information Age. The chart shows an exponential increase in the quantity of information with a corresponding linear increase in exploitation and analysis.

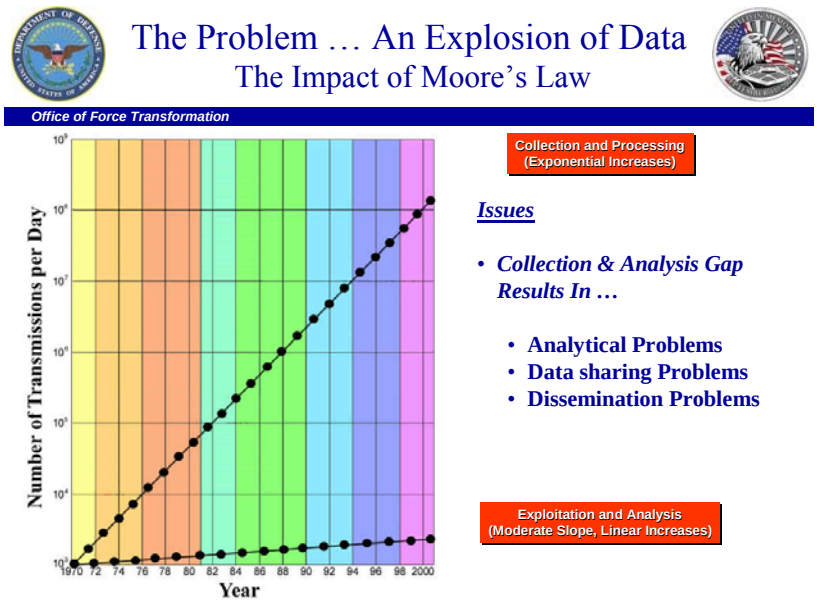

Figure 3 Exponential Collections - Linear Exploitation

Source: Office of Force Transformation briefing, **www.oft.osd.mil/library/library_files/briefing_279_USAWC_Presentation_29_Oct_03.pdf** (accessed 18 May 2006).

The visibility of information in the Information Age affects both the transmission of information to the target as well as the deceiver's attempt at gaining feedback. Visibility refers to the ability of the intended receiver, either the target for transmission or the deceiver for feedback, to identify the pertinent information amidst the vast amounts of other noise present in the system. In a deception campaign, information not noticed has the same effect as information not sent. There exists a careful balance between highlighting a signal sufficiently for the target to see and overemphasizing a signal to the point that it is recognizable as disinformation.

Further technological advances are required to enhance the assimilation of information into knowledge. Currently, agents can search collected data for key words, voices, or whatever other search string interests them. Hiding signals in the vast information flow may become increasingly difficult if the agent selects the correct search parameters, but this selection of the right parameter may be challenging.

As the number of channels increase, problems such as authenticity and accountability also arise. As the Information Age adds more and more channels and the number of users and submitters of data increase, the amount of clutter is drastically increased and passed off as information. Likewise, anonymous sources or sources with unknown reliability post much of the information on the Internet. Further complicating the problem of authenticity and reliability is digital messages and images that can be altered or otherwise tampered with.[41] The effect this has on the deception cycle involves a less trusting target.

The Information Age has simplified the collection of intelligence, but at the same time, it has increased the difficulty of determining whether information is relevant or just random noise. Anyone that has access to the Internet can "publish" information making the problem of determining reliability a key issue. Even if the target validates the original source, it is difficult to deduce if someone has altered or tampered with the digital information. In the last decade, over fifty percent of the fortune 500 companies reported some type of information attack on their systems.[42] The distrust and ambiguity in the target's perception could work in the deceiver's favor allowing for deception plans to further mask the deceiver's true intentions.

As machine processes collect more and more information, human judgment becomes further removed. Thus, assessing enemy intent becomes more challenging. It takes judgment to turn data into knowledge. "Mediating technologies make it more difficult to communicate intentions and easier to distort what the intentions may be."[43] This statement advocates that the Information Age bestows the advantage to the deceiver in deception operations. The key for success in the Information Age is gaining a high level of understanding of the target's perception using all sources available and using modern channels to shape that perception to suit the aim of the deception. Today it seems secrets matter less and selection of data and channels becomes the critical challenge in successfully using strategic deception to achieve surprise.

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[41] Sussman, *Communication, Technology, and Politics in the Information Age*, 141.
[42] Dizard, *Digital Diplomacy*, 180.
[43] Sussman, *Communication, Technology, and Politics in the Information Age*, 51.

Conclusion

Technological advancement spurs change for both the deceiver and the target. Historically, as new technological breakthroughs enhanced communications, both sides began to find ways to exploit it for an advantage. For example, radio was a command and control revolution for militaries. Battlefield leaders with the benefit of radio could control vastly greater expanses of territory and direct the efforts of larger geographically separated formations. Intercepting the enemy's radio communication proved its worth in the Great War. At the outbreak of war in August 1914, an astute German officer intercepted several unencrypted radio transmissions relating to Russian movement and attack plans. The German Army, reacting to the intelligence, was able to defeat the Russian Second Army in the Battle of Tannenberg.[1]

Does this mean that all the Information Age technological advancements have a counter, thus imparting no effects on strategic deception? The answer depends on how actors in the deception cycle react and adapt to the new information environment. The simplified deception process model allows for a systematic examination of the components, their interactions, and the effects of the Information Age.

The Information Age mainly affects the ability of the deceiver to obtain knowledge on the target's perception and the availability of information channels both for transmission and for feedback. The success of any deception campaign rests on shaping the target's perception. The Information Age provides all the tools necessary to create a coherent comprehensive deception plan based on a sound knowledge of the enemy's perceptions and biases. The necessary transmission channels needed to shape that perception and create an alternate reality commensurate with the deceiver's objective exist in abundance. So too do sufficient feedback channels to enable continual adaptation of the deception plan all within in a shorter time cycle.

Along with clear advantages, however, the Information Age brings potential pitfalls to deception campaigns. Failure to adapt and learn in the Information Age may facilitate strategic surprise as in the Soviet and Israeli cases. Perhaps the most important insight is

[1] Dennis E. Showalter, *Tannenberg: Clash of Empires* (Hamden, Conn.: Archon Books, 1991), 191-210.

to recognize that we all view the world through a lens colored by a preconceived perception. Deceivers must remain aware of this human tendency. We accept information that conforms to our own perception and disregard or downplay that which contradicts it.[2] Additionally, the phenomena of groupthink may become more prevalent with communal information reservoirs, similar to the Global Information Grid. The party or individual responsible for posting data to such caches has already introduced some bias. Bias results from the submitter characterizing and manipulating the raw data before posting it. Single sources may also only present information from one perspective. The ability to analyze nuances and distinctions may be lost, reducing the users to a homogenous group that could easily succumb to groupthink.

This thesis offers a departure point for further research. Perhaps the two most important areas that demand further attention are the denial part of the equation and counter-deception operations. Deception is not possible without the ability to deny an adversary access to information that contradicts the signals transmitted during a deception campaign. The Information Age has opened just as many avenues for the target to try to obtain the *truth* as it has for the deceiver to pass disinformation.

The Information Age implications are far-reaching and pervasive through many aspects of law, sociology, politics, and psychology. A seemingly small measure may expose avenues that adversary's may exploit in future deception campaigns. For example, anytime a country reveals sources or methods of attaining information such as satellite capabilities, eavesdropping or electronic surveillance, potential adversaries develop a better understanding of how the intelligence collection system works. Potential deceivers can later use this knowledge and develop a deception plan that exploits the capabilities as channels of disinformation.

One must not ignore counter-denial and deception. As evident from India's openly admission of using denial and deception techniques to hide preparations before they detonated their first nuclear bomb, this is still a modern problem.[3] Central to the fight is information superiority, the more reliable information available from a variety of sources, the more difficult it becomes for an adversary to deceive the US with false signals.

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[2] Jervis, *Perception and Misperception in International Politics*, 118-19.
[3] Godson and Wirtz, *Strategic Denial and Deception*, 223-24.

The case studies provided only two examples of the numerous instances of surprises and failures of an adversary to predict the enemy's intent. Predicting intent is comparable to deterrence; one can easily identify failures but are incapable of indicating success.[4] Deception is not about telling lies, but making the enemy believe something that is not true. If the enemy deceives himself, victory or at least surprise is assured.

[4] Johnson and Wirtz, *Strategic Intelligence*, 162.

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